

## ECONOMIC DEVELOPMENT AND CULTURAL CHANGE

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Bert F. Hoselitz, Acting Editor

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## THE APPEAL OF CONFISCATION IN ECONOMIC DEVELOPMENT

"What's mine is mine, and what's yours is mine too."

Apocryphal Communist Proverb

### I

The appeal of confiscation in financing economic development is not "pure propaganda" in the sense of economic fallacy. It must be taken seriously, not shrugged off by easy analogies to "a shot in the arm" or "the goose that laid the golden eggs." For confiscation of capital has not killed the goose that laid the golden eggs in the Soviet Union, in China, or in the other "people's democracies." It seems rather to have been an important device permitting these countries to develop and industrialize rapidly, while other countries, in which the influence of Western ethics has been stronger, are lagging behind. It is questionable whether the lagging countries can be expected permanently to eschew the device of confiscating capital under their control unless capital is made available to them from abroad in large amounts at attractive terms; it is likewise questionable whether such largesse is in the economic interest of the lending countries.

The issue we discuss is not whether confiscation can be justified by some accepted or conventional Occidental standard of morals or propriety, but merely whether it brings the pragmatic results desired, namely economic development without sacrifice to the scale of living of the mass of the population. It will be our contention that confiscation has done so, is doing so, and will continue to do so, by shifting income to developmental investment from capitalists' consumption, from transfer abroad, and from unproductive "investment" like luxury housing. Therein lies the appeal of confiscation, although it is argued persuasively on the other side in developed countries that these accomplishments require totalitarian dictatorship for their realization and that development is not worth this price.

Historical demonstration of the effects of confiscation past and present requires data from developing and developed economies on both sides of the Iron Curtain, which are not yet available in reliable form, and which may never become available at all. As an admittedly inferior substitute for historical data, I propose to "illustrate" the power of confiscation by hypothetical models of an underdeveloped over-populated economy. The salient characteristics of this economy I shall seek to render fairly realistic for a large group of countries, but there will be others for which the model will remain completely meaningless. (The reader with time to spare may spend some of it in creating an alternative which will fit both Greenland and India, both Puerto Rico and Outer Mongolia.) The model will be sufficiently simple to remain within the bounds of primary school arithmetic. This limitation of technique will prevent consideration of bottlenecks, cyclical oscillations, balance of payments problems, structural relations between economic sectors, and other important effects which have been treated formally in more

elaborate applications of "process analysis" to economic development.<sup>1</sup>

## II

Model I: Our hypothetical economy has a net national and personal income of 100, after depreciation and before direct taxes. Income, both before and after taxes, is divided between service income<sup>2</sup> and property income in the proportion of 85 to 15.<sup>3</sup> While tax progression may be on the statute books, it plays no significant role in modifying either the functional or the personal distribution of income.<sup>4</sup> (Throughout this study, the reader is invited to substitute his own estimates when mine appear imaginative or fantastic.)

- (1) For three such applications, see: J. J. Polak, "Balance of Payments Problems of Countries Reconstructing with the Help of Foreign Loans," Quarterly Journal of Economics, LVII (February 1943), 208-240; reprinted in American Economic Association, Readings in the Theory of International Trade; H. W. Singer, "The Mechanics of Economic Development," Indian Economic Review (August 1952); Trygve Haavelmo, A Study in the Theory of Economic Evolution (Amsterdam, 1954).
- (2) "Service income" includes both compensation of employees and gross profits of proprietors of unincorporated enterprises. Its recipients include, along with the proletariat and peasantry, the bulk of those bourgeois segments classified in Mainland China as "petty" or "national."
- (3) This property share is too high for areas in which population is scanty and land rent low. It is probably too low for densely populated areas with rich agricultural or mining land. A few statistical estimates, given below, are the best available, but refer to countries in which the property share may be lower than it is in the bulk of the underdeveloped world.

Continent and Country	Percentage Distribution of Income			
	Employee C'mpensat'n	Unincorp'd Enterprises	Property Income	Transfer Payments
<u>Africa</u>				
Northern Rhodesia (1949)	63.6	32.7	1.4	2.3
Southern Rhodesia (1949)	55.4	33.0	8.1	3.5
<u>Asia</u>				
Ceylon (1951)	74.7	13.1	5.5	6.6
Japan (1949)	46.8	49.7	1.9	1.6
<u>North America</u>				
Puerto Rico (1948-49)	52.7		39.1	8.2
<u>South America</u>				
Peru (1947)	44.4	36.0	13.1	6.5

Sources: For Ceylon, unpublished data of the Central Bank of Ceylon, made available to the writer by the courtesy of Prof. Theodore Morgan; for other countries, United Nations Statistical Office, "National Income and Its Distribution in Under-Developed Countries," United Nations Statistical Papers, Series E, No. 3 (New York: 1951), p. 18.



Of the assumed property share of 15, one-third, or 5, comprises net saving (above depreciation of capital).<sup>5</sup> I ignore net savings out of service income as unimportant quantitatively. Of the total net savings of 5, 40 per cent (or 2) takes forms available for domestic economic development, either as capital goods or as "social overhead capital." The remainder (or 3) is dissipated in foreign investments, inventories, or residential housing of a luxury or semi-luxury variety.<sup>6</sup> Population is growing at the rate of 1.5 per cent a year. Aggregate net income is growing at the rate of 1.7 per cent a year. This last figure is compounded of a 15 per cent return on developmental investment (including a substantial write-up for external economies), a 60 per cent return on population growth (where any figure under 100 per cent indicates "diminishing returns"), and a flat 0.5 per cent for "entrepreneurship" or innovation, including particularly the introduction of methods already in vogue in other countries.<sup>7</sup>

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- (4) One or more of the three following reasons often explains the disappointing results of progressive taxation in underdeveloped countries: (1) the extremely limited number of technically competent administration and enforcement officials; (2) the susceptibility of under-paid and over-worked civil servants to direct or indirect corruption; and (3) class systems which render it improper for the mere tax-office clerk to question the returns or statements of wealthy merchants or landowners who are his social superiors.
- (5) Gross saving (and investment) percentages would of course be much larger. An estimate by the United Nations Economic Commission for Latin America, for example, concludes that 14 per cent of the total income of this area entered into gross savings in 1953, but that this savings coefficient was "barely sufficient for an annual per capita growth of 0.9 per cent." International Cooperation in a Latin American Development Policy (New York; 1954).
- (6) Dissipation in hoards, or in bidding up the values of land and other existing assets, may also exist. I do not consider it here because such dissipation can be counteracted with relative ease by deficit financing on the part of the government. Dissipation such as is listed in the text requires diversion of real goods from developmental investment to exports, inventories, or residential construction.
- (7) For two independent estimates, one more sanguine than ours and one less so, consider the following running quotation from Joseph J. Spengler, "Demographic Patterns," in Harold F. Williamson and John A. Buttrick (eds.), Economic Development: Principles and Patterns (New York; 1954), pp. 77 f.:

"The movement of aggregate income is dominated by: (1) equipment or income-producing wealth; (2) technical and related forms of progress; and (3) the magnitude of the labor force. With factors (2) and (3) constant, a 1 per cent increase in the amount of 'capital' in use will be accompanied by an increase of 0.25 to 0.35 per cent in aggregate net income. With factors (1) and (2) constant, a 1 per cent increase in the labor force will be

With population growing at 1.5 per cent per year and aggregate income at 1.7 per cent, the annual growth rate of per capita income is only, to a first approximation, 0.2 per cent.<sup>8</sup> If there is no change in the income distribution, per capita service income also grows at this same rate (0.2 per cent per year). This is near-stagnation, which widens annually the developmental gap separating this economy from the advanced countries of the Western World.

These figures are summarized and presented as Table I. This table has been expanded to include the results of 5, 10, and 20 years of growth compounded according to the assumptions which we have made.

Table I

## THE STATUS QUO: ECONOMIC STAGNATION

Line No.	Units	Current	After 5 Years	After 10 Years	After 20 Years
1. Real Income	Absolute	100.0	108.8	118.4	140.1
2. Service Income	"	85.0	92.5	100.6	119.1
3. Property Income	"	15.0	16.3	17.8	21.0
4. Saving Ratio	Per Cent	5.0	5.0	5.0	5.0
5. Developmental Investment Ratio	"	2.0	2.0	2.0	2.0
6. Population Growth Rate	"	1.5	1.5	1.5	1.5
7. Aggregate Income Growth Rate	"	1.7	1.7	1.7	1.7
8. Per Capita Income Growth Rate	"	0.2	0.2	0.2	0.2
9. Per Capita Income	Index No.	100.0	101.0	102.0	104.1
10. Per Capita Service Income	"	85.0	85.9	86.7	88.5

Notes: (Line 7) = .15 (Line 5) + .60 (Line 6) + 0.5  
(Line 8) = (Line 7) - (Line 6) (Approximation)

accompanied by an income increase of 0.65 to 0.75 per cent. On the basis of these estimates and of growth actually recorded in various national incomes, the forces included under (2) have been increasing net incomes in advanced countries something like 1 per cent per year.

"Somewhat similar results were obtained by E. C. Olson in a study based on international comparisons. He found that a 1 per cent increase in the employed population was accompanied by only about 0.25 per cent increase in the national income; and that 1 per cent increases, respectively, in the total amounts of energy and livestock used, were accompanied by increases of about 0.5 and 0.25 per cent in the national income."

(8) The United Nations Economic Commission for Asia and the Far East

## III

Model II: "Comes the Revolution." It may indeed be a social revolution, with or without substantial violence and destruction. It may be a capital levy at rates close to 100 per cent. It may be "nationalization," with compensation wiped out by rapid inflation.<sup>9</sup> At any rate, all capital goods which yield incomes become State property. Certain consumer durable goods which can be converted to income-yielding uses, or sold abroad for capital imports, also become State property. All income from this property goes to the State, none to the former property owners, even though they may retain the bare legal title to certain of the assets. None of the income from property is paid to the service-income classes directly; there is no immediate redistribution or "social dividend" in this model. Because of the absence of redistribution I call this model "Confiscation, Russian Style," with special reference to the period of the first four Five-Year Plans, although the figures I shall use cannot be applied realistically to actual Soviet experience.<sup>10</sup>

More precisely, let us suppose that two-thirds of what had previously been property income (or 10 per cent of the total national income), is used by the State for development purposes broadly conceived, i.e., including not only capital goods but also "social overhead capital." The other third of what had previously been property income (or 5 per cent of the total national income) is dissipated by additional "non-productive" government expenditures<sup>11</sup> (public buildings, armaments, military and police personnel, etc.), or into symbolic compensation for the former property-owners. The five per cent leakage also includes income which would have been earned by private parties but which is not earned under public ownership, either because of damage during revolutionary upheaval or because of inefficient allocation by the public authorities.

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(ECAFE) is more pessimistic. With population growing at 1.5 per cent per annum, ECAFE estimates 6 to 7 per cent net investments to be required for maintenance of existing per capita income under East Asian conditions. "Some Financial Aspects of Development Programs in Asian Countries," Economic Bulletin for Asia and the Far East (Jan.-June 1952), pp. 1 f.

- (9) "Nationalization" with approximately full compensation, on the British model, will not in itself bring about the increases in saving and investment which are postulated below.
- (10) A critic has suggested that they might have been realistic for a Soviet Union which had succeeded in remaining neutral during World War II, or located in a world free from major wars.
- (11) There is much to be said for rehabilitation of the classical economists' distinction between productive and non-productive activities, the former contributing to the maintenance or expansion of the level of economic development and the latter not. We must grant the distinction to be invalid in terms of the creation of utilities, and it is inaccurate to identify this distinction, as the classical economists did, with the distinction between the production of goods and the production of services. Cf. Paul Baran, "Economic Progress and Economic Surplus," Science and Society, VII (Fall 1953), 290-300.

Income created by conversion of nationalized consumer durables (e.g., crops grown on former hunting preserves or golf courses) will be a deduction from the leakage, as will income acquired from foreign sale of other nationalized durables like jewelry and art objects.

An important point in this discussion of leakages is often misunderstood, both by Socialists and by their opponents. The Socialist need not deny the technical superiority of private gain to public interest in allocating land and capital to their most productive uses, although he usually feels compelled to do so, sometimes with reason. Neither need the Socialist deny, as he often does, the involuntary social service performed by the landlord, capitalist, or entrepreneur who makes the more efficient allocation. The Socialist need deny only that this service is worth 10, 15, or 25 per cent of the national income of a poor country, a far less plausible proposition. The Socialist can be compared in this respect to a shabby-genteel buyer of a shabby-genteel used car, who should deny only that the new model is worth to him its 50 per cent extra cost but who insists on assuaging his ego with verbiage about "they don't make them this good any more."

Returning to our theoretical scheme: Let the current year be one in which "normalcy" has been restored after the Revolution. The aggregate income growth rate under public control has fallen to 12.5 per cent of the developmental investment rate plus 55 per cent of the population growth rate plus an improvement or innovation factor of 0.4 per cent. The corresponding figures in Model I were 15, 60, and 0.5 respectively. The reductions are further allowances, over and beyond the five per cent leakage, for the presumably greater efficiency of private over social entrepreneurship. As for population, its rate of growth begins to increase, partially in anticipation of better days to come and partly in response to improvements as they are achieved. Over five years the (geometric) mean growth rate is 1.55 per cent, over 10 years 1.60 per cent, over 20 years 1.65 per cent, with an eventual asymptote at 1.75 per cent.<sup>12</sup> Nevertheless, comparing Model II with Model I, we see immediately a higher growth rate of per capita income, which is caused by diversion of the bulk of property income to development purposes.<sup>13</sup> Per capita service income keeps pace, despite the absence of

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- (12) A growth rate of 1.50 per cent in the current year, rising by 0.02 per cent per year until 1.60 per cent is reached in year 5, then by 0.01 per cent per year until 1.75 per cent is reached in year 25, will yield geometric means close to those in the text.
- (13) A query from a cynical critic at this point remains unanswered: Can any government but a totalitarian dictatorship devote 10 per cent of its national income to developmental investment year after year without being voted out of office by the partisans of Santa Claus here and now? An American survey of actual Soviet experience underlines the criticism. "It may be inferred . . . that Soviet industrial growth was as rapid as it was because of, rather than despite, the existence of central planning and authoritarian control. It seems doubtful that the amount and pattern of Soviet investment would ever be duplicated in an

direct redistribution, and rises at once above the near-stagnation of the status quo. Diversion of property income to developmental investment has triumphed over both the Malthusian bogey of over-population and the Brozenian bogey of "Fabian" entrepreneurship.<sup>14 15</sup> The triumph is only on paper and is derived from arbitrary figures, but in selecting these figures I have attempted "leaning to one side" against the appeal of confiscation, and can imagine no realistic assumptions leading to contrary qualitative conclusions in societies whose income distributions include high property shares which are not plowed back into economic development. Table II, summarizing these results, is presented immediately below.

Table II  
CONFISCATION, RUSSIAN STYLE

Line No.	Units	Current	After 5 Years	After 10 Years	After 20 Years
1. Real Income	Absolute	100.0	113.1	128.4	166.1
2. Service Income	"	85.0	96.2	109.1	141.2
3. Property Income	"	0.0	0.0	0.0	0.0
4. Saving Ratio	Per Cent	10.0	10.0	10.0	10.0
5. Development Investment Ratio	"	10.0	10.0	10.0	10.0
6. Population Growth Rate	"	1.50	1.55	1.60	1.65
7. Aggregate Income Growth Rate	"	2.48	2.50	2.53	2.57
8. Per Capita Income Growth Rate	"	0.98	0.95	0.93	0.92
9. Per Capita Income	Index No.	100.0	104.9	119.7	120.1
10. Per Capita Service Income	"	85.0	89.1	93.3	102.1

Notes: (Line 7) = .125 (Line 5) + .55 (Line 6) + 0.40

(Line 8) = (Line 7) - (Line 6) (Approximation)

(Line 6) and (Line 7) are geometric means over the respective time periods.

essentially consumer-oriented market economy . . . Such a level and pattern of investment, and the rapid economic growth which results, could only be accomplished by an economic system designed to fulfill the wishes of central planners. Resources must be directed, despite the needs and desires of households, predominantly into machines which produce machines (and weapons) rather than into machines which produce consumers' goods and services, including housing." Franklyn D. Holzman, "Soviet Economic Growth," *World Politics*, VII, No. 1 (October 1954), 144.

- (14) Yale Brozen has become the most articulate professional spokesman in America for those economists and business leaders who consider



## IV

Model III: A lower rate of growth after the "Revolution," but higher personal incomes during the earlier years of development, can be obtained by diverting part of what was formerly property income for consumption purposes. In the third model, one-third of property income (5 per cent of national income, 6 per cent of service income) is redistributed to the recipients of service income, as for example by increases in industrial real wages or by replacement of high agricultural land rents by lower agricultural land taxes. Property income, in this third model, has therefore been divided into three equal parts: developmental investments, leakages, and transfers to service income. This disposal of the proceeds of confiscation to include transfers to service income I call "Chinese style," although the figures bear no intentional quantitative similarity to actual developments in Mainland China.<sup>16</sup>

The other assumptions of Model II are retained here, with the results presented as Table III. All the unfavorable features of Model II are retained; the leakages, the inefficiencies in resource allocation, the slowing of innovation, the increased population growth rate. Another "unfavorable" feature has been added, from the developmental point of view: redistribution of income from savers to spenders. Nevertheless, growth is more rapid than under Model I, as measured either by aggregate or per capita income. Growth is slower than under the "Russian-style" confiscation of Model II, but it reaches the common people more rapidly, due to the redistribution feature. (Comparing Tables I and III, no great divergence can be seen in the course of income per capita. The divergence in service income per capita, the more significant item for the masses, is attributable almost entirely to redistribution on the basis of these arbitrary figures.)

Choice as between Models II and III depends upon the preferences of revolutionary societies, and still more of revolutionary leaders. Time preferences are important, and likewise the choice between high growth rates and income redistribution. As this is written (1954-55), Model III seems to exercise the greater fascination for the underdeveloped world.

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private entrepreneurship an indispensable ingredient in economic development over the long period. His position is summarized in his essay, "Entrepreneurship and Technological Change," in Williamson and Buttrick, *op. cit.*, pp. 196-236, and this in turn is summarized in a one-sentence quotation from W. T. Easterbrook (*ibid.*, p. 224): "The straightest, perhaps the only, road to social security is via entrepreneurial security."

- (15) An interesting and suggestive classification of entrepreneurship into "Innovating," "imitative," "Fabian," and "drone" varieties, due to Clarence Danhof, is used by Brozen, *ibid.*, p. 205.
- (16) It is conceivable that Russian practice under the Malenkov regime may be shifting closer to this model than to Model II.

Table III

## CONFISCATION, CHINESE STYLE

Line No.	Units	Current	After 5 Years	After 10 Years	After 20 Years
1. Real Income	Absolute	100.0	109.8	120.8	146.6
2. Service Income	"	90.0	98.8	108.7	131.9
3. Property Income	"	0.0	0.0	0.0	0.0
4. Saving Ratio	Per Cent	5.0	5.0	5.0	5.0
5. Developmental Investment Ratio	"	5.0	5.0	5.0	5.0
6. Population Growth Rate	"	1.50	1.55	1.60	1.65
7. Aggregate Income Growth	"	1.86	1.88	1.91	1.93
8. Per Capita Income Growth Rate	"	0.36	0.33	0.31	0.28
9. Per Capita Income	Index No.	100.0	101.7	103.4	105.8
10. Per Capita Service Income	"	90.0	91.5	93.1	95.2

Notes: (Line 7) = .125 (Line 5) + .55 (Line 6) + 0.40

(Line 8) = (Line 7) - (Line 6) (Approximation)

(Line 6) and (Line 7) are geometric means over the respective time periods.

Neither of the confiscation models, it should be noted, forces the common people to finance development themselves in terms of lower real incomes at any time, although the attainment of higher real incomes may be postponed in the interests of capital accumulation. Comparing either model with the status quo, it is difficult to see how any could prefer the latter, unless he be an adherent of morality *ruat coelum* or of Professor Ayres' "Divine Right of Capital." The popular appeal of confiscation appears to require less economic explanation than does the democratic resistance thereto.

## V

Confiscation of capitalist property and property income is credited with no significant part in the economic development of Western Europe, North America, Australasia, or Japan. If our models possess any verisimilitude, this seems strange at first glance. Yet there are a number of reasons which combined to make the developing western world safe for the capitalist in the nineteenth century, which cannot be relied upon to make the developing remainder of the world equally safe for his biological or spiritual progeny in the twentieth century. Some of these considerations relate directly to certain of the figures of our models; others involve social issues which we have been unable to reduce to numerical form. I list eight factors; no historical instance



rested significantly on all eight, and no one of the eight applied significantly to all the economies which developed early.<sup>17</sup>

1. Highly important, except in the Japanese case, was the high social mobility which prevailed in the developing countries. In most cases, the period of rapid development seems to have been an age of "three generations from shirt-sleeves to shirt-sleeves." More significantly, it was an age in which entrepreneurship in developmental activity was a promising route from the bottom to the top of the social ladder. A large part of the population saw its future, or its descendants' future, in entrepreneurship and thereafter in property-ownership, however extravagant these visions became in the event. As a result, neither egalitarianism nor confiscation could hold great popular appeal over long periods. Social mobility in an upward direction is exceptional in the underdeveloped communities of today, and such mobility as exists appears to exercise little influence on the political and economic attitudes of the people.

2. Expropriation, moreover, has seldom had in the advanced capitalist countries the aid of xenophobia which it has in much of the present-day underdeveloped world. Most of the capital in the western countries was held by native citizens, if we except specie hoards in Italian, Jewish, or Levantine hands. These native citizens were not, like the compradores of China, the agents of foreign interests. When capital was foreign-held, the owners tended to be similar to native citizens in race, religion, and general mores. Ownership of capital was not associated with overbearing foreigners prejudiced against "the natives" on racial or religious grounds. Such prejudice and overbearingness as existed was primarily in the opposite direction most of the time, as witness the history of European Jewry. The contrast with present-day Asia, Africa, or Latin America need not be dwelt on further.

3. In the eighteenth and nineteenth centuries there was little of the self-conscious haste that infuses the two-to-ten-year plans of today. (Japan under the Meiji Emperor was a partial exception, as was Germany under Bismarck.) There was implicit confidence that development would come in time, by Adam Smith's "invisible hand," and relative unconcern about the precise date. The United States, for example, waited for 100 years after independence as a satisfied raw material producer, before challenging British primacy in manufacturing on the world market. During the same period, American enterprisers extended railroads ahead of their traffic and built factories beyond the market capacity for their outputs, relying on the next decade or generation (plus tariffs or subsidies, but not central planning) to justify their rashness. The underdeveloped countries of today, precisely because they have been left behind for a century or more, want to catch up in a hurry, and have no faith in market forces or private enterprise to achieve in 1950 what they did not achieve in 1850 or 1900.

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(17) The development of this section was assisted significantly by Benjamin Higgins' unpublished paper on "Economic Development of Underdeveloped Areas, Past and Present," and by the criticisms by several friends of an earlier draft of the present essay.

4. In our Model I, only 13 per cent of property income is reinvested in domestic economic development. The appeal of confiscation would be less if this figure were higher. The figure given is probably too high for much of the present underdeveloped world. But it would have been too low for New England, Yorkshire, or the Ruhr Valley, during their periods of expansion. For these regions rose to economic greatness when the Calvinistic heritage dominated their religious scene, although Calvin himself had long passed away. The Calvinist heritage meant, in the nineteenth century as well as the sixteenth and seventeenth, that high incomes were justified, if at all, by high saving and investment, and that luxurious consumption was frowned upon as abuse of divine stewardship. Delhi and Versailles might have exercised the same "demonstration effect" upon developing Boston and Manchester -- lowering investment and disturbing the balance of payments -- which Paris and Hollywood exercise on developing Latin America today. But they did not, and private capital justified itself by its works. In the present underdeveloped world, however, the drive of wealthy business men "to accumulate capital and expand their enterprises is continuously counteracted by the urgent desire (or social compulsion) to imitate in their living habits the socially dominant 'old families,' to prove by their conspicuous outlays that they are socially (and therefore also politically) not inferior to their aristocratic partners in the socially ruling coalition."<sup>18</sup> Or, as the matter is summed up by Spengler, production dominated consumption in the developing West of the eighteenth and nineteenth centuries, while consumption is tending to dominate production in the underdeveloped countries of the twentieth century.<sup>19</sup>

5. Conversely, eighteenth- and nineteenth-century governments were less adequately equipped to execute economic development projects than the Iron and Bamboo Curtain governments of the twentieth century. To hand over property or property income to the typical Stuart, Bourbon, or Romanoff monarch or minister would have wasted the returns and the principal as well. More chaos than progress would have resulted from State Socialism under Charles II, Louis XV, or Nicholas II. Leakages would have absorbed 100 per cent of the property income. Aesop's fable of the goose and the golden eggs would have applied. The classical economists were platitudinously right in listing the security of private property as a requisite for economic progress.<sup>20</sup> But as John Stuart Mill himself seems to have foreseen, this doctrine can no longer be applied without modification.<sup>21</sup> Although many a government of a

(18) Paul A. Baran, "National Economic Planning," in B. F. Haley, ed., Survey of Contemporary Economics, Vol. ii (Homewood, Ill.; 1952), p. 378.

(19) Joseph J. Spengler, op. cit., p. 96.

(20) See, e.g., John Stuart Mill, Principles of Political Economy (ed. W. J. Ashley) (London; 1909), pp. 881 f.

(21) Ibid., pp. 204-11, including a famous passage (p. 208):

"If, therefore, the choice were to be made between Communism with all its chances, and the present state of society with all its sufferings and injustices; if the institution of private property

modern underdeveloped country follows the ineffective Stuart-Bourbon-Romanoff pattern, there is usually a good chance that its revolutionary successor will not. In weighing the feasibility of a Socialist alternative to a stagnant capitalism, the present character of the existing non-Socialist government (viz. the Kuomintang of Chiang Kai-shek) should often be given less weight than the anticipated character of its Socialist rival (in this case, the Chinese Communist Party).

6. Confiscation of capitalist property and its income may have played no great part in the economic development of the western world,<sup>22</sup> but other forms of confiscation were not avoided. The natural resources of America, Canada, Australia, New Zealand, South Africa were confiscated from aboriginal tribes. Individual and communal rights of the English peasantry were confiscated piecemeal over the three or four centuries of the enclosure movement. Feudal baronies in France and ecclesiastical properties in England, rice subventions of Japanese samurai, were all confiscated by the State and converted largely to private developmental uses as incidents of the French Revolution, the English Reformation, and the Westernization of Japan. So great was the loot of Bengal that Premier Nehru can speak, with no more than pardonable patriotic exaggeration, of the British industrial revolution of the 18th century being financed through the proceeds of confiscated Indian capital.<sup>23</sup> One is reminded of Karl Marx on "The Genesis of the Industrial Capitalist": "If money . . . comes into the world with a congenital blood-stain on one cheek, capital comes dripping from head to foot, from every pore, with blood and dirt."<sup>24</sup>

7. With such exceptions as have been mentioned, the legitimacy of private property rights, acquired through purchase or bequest, has been recognized throughout the western world throughout the period of western economic development. It has become too fundamental a part of the western legal system to succumb to immediate frontal assault. But under the impact of international collectivist ideologies, the "legitimacy" concept of property rights is following the "legitimacy" concept of royal sovereignty into the discard in country after country, where it has become less firmly and honorably established. This is particularly true when, as in such cases as the zamindari of India, or the oil concessions of Iran, "legitimate" ownership rights are traceable to questionable transactions in a relatively recent past.

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necessarily carried with it as a consequence, that the produce of labour should be apportioned as we now see it, almost in an inverse ratio to the labour -- . . . if this or Communism were the alternative, all the difficulties, great or small, of Communism would be but as dust in the balance."

(22) Although Americans, for example, should not forget the wholesale debt repudiations of the Midwestern and South Central States following the Panic of 1837.

(23) Jawaharlal Nehru, The Discovery of India (New York: John Day, 1946), p. 296 f., citing also Brooks Adams, The Law of Civilization and Decay.

(24) Karl Marx, Capital, Vol. I (Chicago, 1906), p. 834.

8. Some developed countries (Japan being perhaps the best example) accumulated the bulk of the capital for their development from the masses of the people. In Japan this was done by keeping the peasants at the subsistence level through increasing land taxes (which were shifted generally to the tenant farmers),<sup>25</sup> and holding real wages down through inflation and monopolistic labor market practices. But the peasants and workers of most underdeveloped countries have become too well enlightened by Leftist leaders, and have come to possess too much military and political strength, for such alternatives to confiscation to be widely effective in raising capital in the latter half of the twentieth century.<sup>26</sup>

## VI

Confiscation of property and property income runs counter to Western notions of economic morality. More important, it runs counter to Western economic interests. For when property is expropriated, foreign property will usually be expropriated earlier and on less considerate terms than domestic.<sup>27</sup> Western nations are therefore doubly concerned with the appeal of confiscation in underdeveloped countries. If, as I believe, the appeal of confiscation makes economic sense, it will probably increase with time. The question arises: How should Western policy meet the ideological and the practical threats to Western interests?

The optimum solution, from the Western point of view, would be a reformist, voluntary "democratic alternative," which would provide growth rates comparable to those of our Models II and III without the concomitant expropriation of foreign and domestic property.<sup>28</sup> Many such "democratic

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- (25) Shifting of land taxes to tenants implies a situation in which landlords were not exacting maximum rentals from tenants before the taxes were imposed or increased. The feudal landlords in Japan prior to the Meiji Restoration were far from economic men, and probably failed in many cases to collect the full rental value of their properties.
- (26) The principal exception to this generalization is found where the Government forces crop deliveries at low fixed prices, and then resells them at higher market prices, the profit going largely for development purposes. (Thailand and Burma, for example, gain large revenues from this system of rice marketing.) If the analysis in the text is correct, such regressive taxation of the peasantry will not continue politically feasible for many years after the peasants are informed (as they are being informed) of the economic significance of the two-price policies.
- (27) There are many exceptions to this general statement (e.g., Yugoslavia under Marshal Tito), usually involving political relations between the expropriating country and the homelands of the foreign investors.
- (28) Critics have suggested another optimum solution, from the Western point of view: the indefinite renunciation of economic development by the "backward" two-thirds of the world's population. This is (almost)

alternatives" may be found on paper: taxation (other than capital levies), increased saving by propertied classes, "mobilizing" this saving for development purposes, and so on. Efforts in these directions are laudable, and nothing said here should be interpreted in their disparagement. However, I shall make the pessimistic assumption in the remainder of this paper that, for much of the underdeveloped world, any "democratic" or "voluntary" alternative is too little and comes too late -- that it is, in other words, Utopian -- so that the appeal of confiscation must be answered by suppression of revolutionary movements and/or through sweetening of the status quo through economic aid from Western sources.

## VII

The traditional way of dealing with backward peoples' disregard of advanced Western concepts of property rights has been suppression, and the traditional mechanism of suppression has been a species of the genus "imperialism." The precepts of Western business etiquette and the interests of Western economic adventurers were enforced simultaneously upon the "lesser breeds without the Law." Offending countries became colonies, dependencies, protectorates, satellites, "spheres of influence," or were otherwise disciplined. This was "gunboat diplomacy." But the gunboat diplomacy species of imperialism has passed with its prophet, Rudyard Kipling. There will doubtless remain for some time areas in which one or another Power finds an aerial version of gunboat diplomacy effective in enforcing the economic proprieties in the interests of its influential citizens. (Kenya in Africa and Guatemala in Central America come to mind, in the context of the middle 1950's.) But such areas are apparently shrinking rather than expanding, and gunboat diplomacy has come not always to pay even where it still works. That is to say, the enmities which it creates are becoming more widespread and therefore more costly to combat around the globe and in the long run than is justified by the value of the capital it preserves in the limited area still open to its use. A country forcibly restrained from expropriating property income this year may go "behind the Curtain" in the next. Or its example will be used to move some other country Leftward (or Eastward, as the case may be).

Imperialistic repression of confiscation now operates generally in disguise, as a necessary concession to worldwide nationalistic aspirations. Its usual present form is the supply of military assistance to maintain in power governments in underdeveloped countries which can be trusted not to confiscate foreign property, however little may be said for them on other grounds and however little support they may be able to generate among their subjects. But many of the objections to gunboat diplomacy apparently apply with almost equal force to this successor. It too often fails, outside the military orbit of some Western power. And when it succeeds, it too may not be worth its cost

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certainly wrong. Almost any development short of autarchy creates customers and suppliers for the rest of the world faster than it creates competitors -- special cases to the contrary notwithstanding.



in the long run, when the regime maintained in power is a stench in its neighbors' nostrils and the method of maintenance alienates these neighbors politically and economically.

## VIII

The expectation of rewards for good behavior, in the form of future foreign loans and investments, seems already much more efficacious in forestalling expropriation than is the fear of punishment or the bolstering of "friendly" governments by military aid. When a country stands to lose more in future aid by confiscating private capital within its control than it stands to gain from the value of the capital at stake, it usually exercises a seemly caution and restraint in dealing with private interests affiliated with sources of potential largesse. But the hope or the promise of reward must be substantial, plausible, and contemporary. Crumbs from the table will not do, nor pie in the sky when you die. Here lies the rub, for those benevolent global planners in the United States and the international agencies who hope to forestall confiscatory financing indefinitely by a spate of kind words and a few billion dollars spread thinly in time and space over the underdeveloped world.

Once the loans and investments are made, moreover, their expansion cannot end easily. Capital sunk at long term in a foreign land is, like a wife and children, a hostage to fortune. (In this case, a hostage to expropriation.) The hostage may be safeguarded by additional capital, or promises thereof. When made, these additional loans and investments become ransoms to expropriation. Like other ransoms, they must be large and they must eventually be delivered. Unlike other ransoms, each payment becomes another hostage to be ransomed. As the total hostage of capital increases, the greater the temptation it presents to the confiscator, and the greater the ransom required for its continued protection. The greater becomes the value of existing foreign investment required continuously to safeguard it against expropriation.<sup>29</sup>

The attempt by the West to bribe or buy its way out of confiscation of its investments in the underdeveloped countries may yet become the white man's burden of the twentieth century. It is costly enough in the present, to taxpayers in the advanced countries and to victims of inflation and material shortages. What is more alarming is that each installment paid on the cost will increase rather than decrease the cost of each subsequent installment, with no upper bound in sight until the borrowing country has achieved development at a rate satisfactory to its leaders.

## IX

In these circumstances, my own suggestion is for withdrawal, for "economic neo-isolation" of the developed from the underdeveloped world. It is less a suggestion for a new policy, in fact, than a franker and more brutal recognition of the nature of present Western policy, and for undeceiving the underdeveloped countries regarding prospects for early relaxation.

(29) In this discussion I consider the absolute volume of new investment, not its proportion to the national income of the investing country.

Capital remains scarce, despite gloomy forecasts of its superfluity in "mature economies." It remains scarce for purely domestic uses both civil and military.<sup>30</sup> Capital being scarce, the advanced countries give first priority to their domestic needs, and distribute it for development in the rest of the world only on a cautious and niggardly scale. They make it available abroad -- in quantity, that is to say -- only at going rates of interest, and under acceptable guarantees against not only expropriation but also freezing of interest, profits, and principal repayments.

Neo-isolation, as I see it, is little beyond explicit recognition of the facts if I see them aright, and a resulting limitation of government (and government-guaranteed) development loans within the same quantitative limits as the charitable grants typified by the American Point Four program, however meager and unsatisfactory these limits may seem to developing countries. Neo-isolation, if adopted as formal policy, would mean saying (as against hinting) to the governments of the underdeveloped countries: "We appreciate and sympathize with your desire for economic progress. Therefore we recognize the appeal of expropriation in financing economic development, if not to yourselves then to your successors in office. We recognize as well the economic soundness of confiscation, from your point of view. We therefore feel it unsafe to lend you appreciably more than we can afford to present you free of charge. We are unwilling to assume a financial 'white man's burden' of ransoming an increasing volume of existing loans and investments from confiscation by an increasing volume of new ones. If private individuals and international associations are more venturesome, well and good, but we are unwilling to underwrite their ventures."

Such bluntness and brutality would lead to an immediate disadvantage to the West. It would accelerate, by decades if not by generations, the evil day of expropriation of existing Western assets in many countries, although (if the previous argument is correct) it would reduce total Western losses from the expropriation process. Neo-isolation would also raise delicate questions of relations with expropriating governments, and questions of possible domestic compensation to the owners of the confiscated foreign assets. These questions involve details which must be worked out differently in each case, but certain general rules may apply and may be useful:

1. Diplomatic relations with confiscating governments should not be broken off.
2. No more favorable treatment should be demanded for Western nationals in the event of confiscation than is given to citizens of the confiscating country. (If more favorable treatment is offered, without pressure, there is no reason for non-acceptance.) Equality of treatment should ordinarily be striven for; it cannot always be achieved.

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(30) I need not face the issue here as to whether the scarcity would survive reduction of Western defense expenditures to the level of the 1920's.



3. Domestic compensation for victims of foreign expropriation should neither be promised nor ruled out wholesale. Amounts to be paid should be estimated on the merits of individual cases, with consideration for (a) the manner in which the property was acquired, (b) the historical and reproduction cost of the assets confiscated, (c) the record of the claimant's relations with the government and people of the confiscating country prior to confiscation, and (d) the returns already paid prior to confiscation. If guarantees of domestic compensation are made to enterprisers of particular foreign projects, they should be conditional upon satisfactory performance on points (a) and (c) above, upon application of the "prudent investment" principle under point (b), and upon moderation under point (d). Compensation should not be paid for unrealized capital gains from speculation in real estate or in inventories.

## X

Underdeveloped areas are not all alike. There are many in which our pessimistic models do not apply. There are many in which a "democratic alternative" to both stagnation and confiscation is an actual operation. There is no uniform treadmill which one may call "The Political Economy of Backwardness."<sup>31</sup> For this reason among others, there are many countries in which confiscation is not a near-term problem. In these countries, a defeatist neo-isolation policy should not be applied. It is not in fact being applied there; statistical analysis shows Western aid concentrated in such countries, to an extent otherwise incomprehensibly disproportionate.<sup>32</sup>

What are the underdeveloped areas to which neo-isolation is inappropriate? There would appear to be five major categories in which large-scale international lending for development purposes seems appropriate, and in most of which it is in fact being carried on.

1. Isolation would be mistaken, first of all, in areas which, while technically underdeveloped, have already attained high living standards and rapid social mobility upwards. Here confiscation exercises no more appeal than it did on the nineteenth-century American frontier. These are the areas par excellence of successful "democratic alternatives" to both stagnation and expropriation. Alaska, Labrador, and perhaps Brazil provide examples. Illustrations from Asia, from Africa, or from heavily populated regions generally are difficult if not impossible to find.

(31) For an opposite view, cf. Paul A. Baran, "On the Political Economy of Backwardness," *Manchester School*, XXIII, No. 1 (Jan. 1952), 66-84, as well as other writings already cited in this essay. Baran is more right than wrong in his neo-Marxian analyses. His writings are a welcome antidote to the Pollyanna pronouncements of some official agencies and the unfounded confidence in "pragmatism" (or "muddling through") of the remainder. Baran suffers nevertheless from the over-simplification of identifying every backward area with every other, with the Poland of the interwar "Colonels' Clique" as the possible archetype.

(32) Concentration of Western loans and investments in areas where confiscation is not threatened may conceivably, if the results are favorable, exercise some degree of contagion on the remainder of the underdeveloped world, and reduce somewhat the general threat of confiscation.

2. At the other end of the scale, isolation need not be applied in those areas in which there is nothing worth confiscating, i.e., in which there is neither property income nor luxury consumption on any scale. Libya, Afghanistan, and Nepal are examples. Loans and investments here may or may not be productive, but they will probably be safe from expropriation unless these countries are taken over by Communist aggression, unless the investments themselves create a leisure class as target for expropriation, or unless the burden of interest charges and principal repayments is set too high for the countries to meet while still developing at reasonable rates.

3. Isolation should not apply, thirdly, where the yield of capital is high enough to satisfy simultaneously the demands of foreign investors and the aspirations of domestic political leaders. Regions rich in natural resources, particularly petroleum, fall into this category: Saudi Arabia in the Middle East, Venezuela in South America, Brunei on the island of Borneo. Paradoxically, this category also includes many of the "new democracies," where confiscation has already occurred and a rapid growth rate has already been attained. A foreign loan to the Soviet Union, which expropriated all pre-1917 foreign investments in Russia, would be a safer economic proposition than a foreign loan to, let us say, Cambodia, in which confiscation of Western assets has never been permitted. Reluctance or refusal to consider investment in loans to socialist states is ascribable more readily to resentment of the past than to timorousness for the future.

4. Isolation is also ill-advised in areas where expropriation of property is ruled out by the fundamental law of a Western Power close enough to exercise effective supervision -- tinged with imperialism, if you will. Puerto Rico and Cuba are cases in point here. In other areas, such as Portugal, political control seems safely in the hands of the propertied classes and their religious allies for the next generation or two, and expropriation does not loom presently as a significant political possibility.

5. The final exception pertains to instances of particularly close racial, religious, or cultural ties between developing countries and foreign sources of capital, which assuage the conflicts of interest that might otherwise occur. It would be difficult to imagine Israel, for example, defaulting on its obligations to Western Jewish communities while it retains its independence, or New Zealand defaulting on obligations to creditors in Great Britain.

But these are after all little more than exceptions. They do not disturb seriously my general anticipation of an increasing appeal of confiscation in economic growth, until the bulk of world development is financed by State expropriation of the property share of the national income. Neither do they disturb seriously my general recommendation of continued economic isolation and withdrawal from most of the non-Socialist underdeveloped world as the "least worst" policy for Western capitalism in the face of the threat implied in the appeal of confiscation. These defeatist conclusions apply particularly in Asia, where the direct influence of the Russian and Chinese expropriations is greatest, and where counter-pressures from the West can least easily be brought to bear.

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THE ECONOMY OF A TRAPPING CENTER:  
THE CASE OF FORT YUKON, ALASKA

I

Research on the economics of technologically retarded cultures has developed appreciably over the past two decades.<sup>1</sup> Three areas especially -- Negro Africa, Oceania, and Middle America -- have been relatively well sampled by comprehensive, quantitative descriptions of selected communities.<sup>2</sup> For these areas also, special studies have been published on such topics as the pattern of economic institutions, consumption requirements, land tenure, and trade. Recently, important publications have begun to appear on the economic aspects of acculturation; Hawthorn's monograph on the Maori, Houghton's report on the Keiskammahoek rural survey, and McKim Marriott's paper on technological change among Indian villagers are illustrations.<sup>3</sup> In general, economic anthropology has realized excellent progress in perfecting descriptive methods. It is, in my opinion, increasingly ready to undertake analytical and policy-oriented studies which have great potential importance not only for the understanding of cultural dynamics and culture history, but also for the implementation of Point Four and allied programs in underdeveloped areas.

The present paper, based upon my exploratory investigation in the Fort Yukon area, Alaska, in 1949,<sup>4</sup> indicates a methodology which may prove

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- (1) M. J. Herskovits' fundamental volume, Economic Anthropology (New York, 1952), gives a full bibliography, except for Russian materials. The Russians have had a long and very fruitful tradition in economic anthropology; note, for example, V. N. Vasilyev, "Concise sketch of the economy of the Karagas," Etnograficheskoye Obozreniye, LXXXIV (1910), 46-75; Ye. K. Pekarsky and V. P. Tsvetkov, "Economy of the Ayan Tungus," Sbornik Muzeya Antropologiyi i Etnografiyi, II (1913), 1-128; M. Ya. Fenomenov, Sovremennaya Derevnnya (The Contemporary Village), 2 vols. (Leningrad-Moscow, 1925); and A. F. Anisimov, "On the socio-economic relations of the Evenki hunting household," Sovetskiy Sever, No. 5 (1933), pp. 38-49.
  - (2) Outstanding studies are those of G. M. Foster (assisted by G. Ospina), Empire's Children. The People of Tzintzuntzan (Mexico City, 1948); and Sol Tax, Penny Capitalism, a Guatemalan Indian Economy (Washington, 1953).
  - (3) H. B. Hawthorn, The Maori: A Study in Acculturation; Memoirs of the American Anthropological Association No. 64 (Menasha, 1944); M. Marriott, "Technological Change in Over-developed Rural Areas," Economic Development and Cultural Change, I, No. 4 (Dec. 1952), 261-272; H. B. Houghton, "Keiskammahoek Rural Survey: A Study of Failure in Social Adaptation," Economic Development and Cultural Change, I, No. 5 (February, 1953), 350-359.
  - (4) Financed by the Office of Naval Research through the Arctic Institute

suitable for wider use in analytical and applicatory research in economic anthropology. This methodology embraces four steps: selection of the research target, the gathering of primary and validating materials, the description and measurement of economic factors and forces, and the interpretation of past socio-economic trends and of present alternatives.

The general objective of my research in 1949 was to gain an understanding of human ecology in interior Alaska. The selection of Fort Yukon as the specific focus of research was based on several considerations. The population of the village and its hinterland, about 650 persons in 1949, was large enough to provide statistically significant results. In addition, the Fort Yukon area has been served since 1914 by the Hudson Stuck Memorial Hospital; hence, relatively complete and reliable vital and morbidity statistics were available. Also, an economic survey of Fort Yukon village had been made in 1940 by the Alaska Native Service, and could serve as a point of departure. Furthermore, the economy of the area was free of domination by a single employer, e.g., a large cannery or a military installation. Hence, economic decisions would be more localized and particularized. Finally, the area was sufficiently isolated from major urban centers so that a comprehensive treatment of its economy remained manageable in size and simplicity of relationships.

## II

The materials upon which the study was based included official and private records (at Juneau, Fairbanks and Fort Yukon), questionnaires and interviews, and direct observations. The most important data comprised the following:

1. The Fort Yukon Economic Survey of 1940. This covered all native households, enumerating population by age and (separately) by sex, and evaluating housing, personal property, dogs, productive equipment, fur and fish catches, the production of clothing and garden produce, cash income and debts.
2. School and ecclesiastical censuses, 1946 and 1947. The former reported the name, age and sex of all members of native households resident in Fort Yukon in 1946; the latter, the population of Fort Yukon, Venetie, Fishhook (Chalkyitsik), Christian and other, more remote villages, in 1947.

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of North America and by the Russian Research Center, Harvard University. The opinions expressed here are solely the author's. Acknowledgments for generous aid on this trip are due especially to Mr. Ralph Browne, Assistant Manager, Alaska Development Board, and to Rev. W. C. Files of the Episcopal Mission at Fort Yukon. See also Shimkin, "General Report on Field Trip to Alaska, June-August, 1949 for the Arctic Institute (Office of Naval Research)," filed with the Arctic Institute and the Alaska Branch, Department of the Interior, October, 1949; and Shimkin, Fort Yukon, Alaska. An Essay in Human Ecology, I (Juneau, 1951).

3. The Territorial Fish and Wildlife Service provided estimates of game-bird and mammal catches in the Fort Yukon and adjacent areas for the year 1948-49.

4. The Territorial Department of Public Health and the Hudson Stuck Memorial Hospital furnished birth and death records for the period January 1943-June 1949; also, reports on hospital bed occupancy (including the place of residence of each patient), on out-patient services, and on morbidity, for the period July 1948-June 1949; and summaries of local medical receipts and expenditures.

5. Data on gratuitous disbursements -- free medical care, Aid to Dependent Children, Old Age Assistance, and veterans' pensions -- came from the Hudson Stuck Memorial Hospital and the appropriate government agencies. The latter were also the sources of information on fur-price trends since 1929, and on comparative price data, especially the costs of U. S. Department of Agriculture minimum diets for children and adults in various Alaskan towns, 1949.

6. I recorded the prices for a large variety of consumer and producer goods at the three stores in Fort Yukon. The merchants kindly provided information on their volume of sales and of unrecovered debts in 1948-49, and summarized their operating methods and problems. Other small businessmen in the village did likewise.

7. The Civil Aeronautics Administration, the local Wien Airlines agent, and others generously submitted detailed information on scheduled and bush-pilot operations from Fort Yukon, the latter including the trap-lines served and the freight handled.

8. My questionnaires and interviews elicited information from 35 families resident in Fort Yukon and 7 resident in the hinterland; in all, about a 30% sampling of both native and white households in the entire area. The topics covered included the name, sex, age, relationship, place of birth, principal occupation, and total schooling of each household member. Information on housing, house furnishings, clothing, work dogs, productive equipment and gardens was also sought. For each member of every household 16 years or over, I attempted to obtain a chronological work history for the year July 1948-June 1949. For this same period, questions were also asked on household receipts in cash and kind, and on cash expenditures. In addition, the de facto ownership, location and extent of 63 traplines, about 80% of all those in operation in the Fort Yukon area, were determined. Finally, with the degree of representativeness (in terms of household size and composition, and in terms of economic base) reasonably established, the sample data were projected by suitable multipliers to cover the entire Fort Yukon population.

9. Direct observation and measurements supplemented my inquiries, especially in regard to housing, gardening, and fishing.

In general, a substantial amount of overlap in the information gathered from different sources was deliberately sought in order to permit cross-checking and thus minimize error. For example, a population pyramid



constructed on the basis of name, age and sex counts through June, 1949, showed a suspiciously low number of children, especially boys, under five years of age. The vital statistics confirmed this under-enumeration. Again, a check of Fish and Wildlife Service fur-catch estimates against the sales of furs at the stores and against trappers' questionnaires confirmed their reliability; however, the last source demonstrated that official figures on caribou, moose and fowl killed were far too low.

### III

Let us now turn to a description of the economic factors and forces operating at Fort Yukon.

Environment and physical resources. The village of Fort Yukon is the seasonal home, or the base of operations, of hunters and trappers exploiting the basins of the Chandalar, Christian, Sheenjek, Porcupine, Black and Yukon Rivers, and of Birch, Preacher and Beaver Creeks, approximately between 65°50' and 67°30' N, and 142°0' and 147°0' W. (See Figure 1.) This area of 17,000 square miles, more than twice the size of Massachusetts, includes, in addition to Fort Yukon, the two small settlements of Fishhook and Venetie, a number of seasonal satellite communities such as Twenty-Mile Camp and Birch Creek Village, and a couple of hundred trappers' base and line cabins.

Among the economically most important characteristics of the area are the following.<sup>5</sup> Two seasons can be distinguished: winter, from early September to late May, with a mean temperature of 7.3° F and a mean total snowfall of 42 inches; and summer, from early June to late August, with a mean temperature of 58.3° F and a rainfall of 3.07 inches. Except for unseasonable thaws and brief periods of very cold weather (-60° F or lower), winter is a period of relatively easy movement by dog sled or toboggan. In the summer, water or air transportation alone are possible, since this lowland country is then dissected by the Yukon, its tributaries, and countless sloughs and lakes. With practically continuous daylight and completely clear weather nearly 50% of the time, adequate heat develops for the successful cultivation of potatoes, root and green vegetables, and hardy grains. Summer droughts and the easy exhaustion of the light alluvial soil are major problems.

At the present time, game and fish are the basic exploited resources. From the standpoint of cash income, marten, mink, muskrat and beaver were the most important, furnishing over 90% of the value of product in 1949; fox, once very profitable, was then scarcely worth taking. Considerable evidence exists that the numbers of mink, muskrat and beaver had declined sharply in the Fort Yukon trapping area between 1938 and 1949, and that over-trapping was the likely cause. From the standpoint of subsistence, moose were overwhelmingly the most important game in 1948-49, providing some 80,000 pounds or about 50% of all meat and fish consumption by weight; between

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(5) For a more detailed analysis of the geography and resources of the Fort Yukon area, see Shimkin, Fort Yukon, op. cit.

15 and 20% each came from muskrats and fish (especially king and silver salmon, and whitefish). The caribou, once present in enormous herds and still numbering over 10,000 in this area in the 1930's, has become a rarity.<sup>6</sup> The destruction of the caribou ranges through fire, which is a constant summer hazard, has been, in the considered judgment of Leopold and Darling, the principal cause of this tragic decline.<sup>7</sup>

Prior to World War II, wood-cutting for the river steamers was an important source of income on the Yukon. The decline in traffic and the dieselization of the two remaining vessels have eliminated this activity, though firewood is still the ubiquitous domestic fuel, and lumber the universal building material. Spruce is the dominant tree; mature stands of birch, now rare, are essential for the manufacture of snowshoes, sleds and allied gear.

As of today, the Fort Yukon area has few commercial potentialities. Its arable acreage is large, but inaccessibility, the high initial outlays which would be needed, and the small and uncertain demand make market farming a doubtful risk. Similarly, the timber is commercially marginal: remote, slow growing, and badly damaged by fire. Finally, the Fort Yukon area is still largely unsurveyed, let alone prospected. The most important mineral resources thus far known are the extremely rich oil shales of the Porcupine River.<sup>8</sup> In sum, therefore, this area is not likely, in the foreseeable future, to attract large-scale investment from commercial sources. Barring the development of a positive governmental program, economic amelioration is improbable.

Demographic factors. In the mid-nineteenth century, when the Hudson's Bay Company first established a trading post at Fort Yukon, the entire present-day hinterland was occupied by Kutchin Athabascans numbering about 500.<sup>9</sup> The consequences of white contact reduced the population to about 230 in 1879; by 1930, it had recovered to the earlier level. Then it climbed to roughly 600 in 1947 and 650 in 1949. (Table I.)

The village of Fort Yukon, which reached a momentary peak of more than 250 persons during the gold rush of 1897, had only 100 semi-permanent residents in 1904.<sup>10</sup> By 1910, its population -- at least in summer -- had climbed to 321

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- (6) Frank Dufresne, Alaska's Animals and Fishes (New York, 1946), p. 29; Dufresne, Mammals and Birds of Alaska, U. S. Department of the Interior, Fish and Wildlife Circular No. 3 (Washington, 1942).
- (7) A. S. Leopold and F. F. Darling, Wildlife in Alaska. An Ecological Reconnaissance (New York, 1953), pp. 45 f.
- (8) J. B. Mertie, Jr., The Chandalar-Sheenjek District, Alaska, U. S. Geological Survey Bulletin 810-B (Washington, 1929), p. 139.
- (9) Compiled from C. Osgood, Contributions to the Ethnography of the Kutchin, Yale University Publications in Anthropology, No. 14 (New Haven, 1936), pp. 14-15.
- (10) Economic Survey of Fort Yukon, Alaska, September, 1940 (Alaska Native Service, Mss.), p. 4.



Table I

## POPULATION OF THE FORT YUKON AREA, 1879 to 1947

Settlement	1879 /a	1930 /b	1947 /c
Fort Yukon	109	304	(440) /d
Venetie	)	62	58
Christian Village	)	36	5
Old Rampart	) 120	30	?
Fishhook Village	)	35	84
Salmon Village	)	30	?
Total	229	497	(600)

a/ Source: I. Petroff, A Preliminary Report Upon the Population, Industry and Resources of Alaska (46th Congress, 3d. Session, H. R. Exec. Doc. No. 40, Jan. 15, 1881), p. 62.

b/ Source: U. S. Department of the Interior: General Information Regarding the Territory of Alaska, edition of June, 1931 (Washington, D.C.), pp. 12-13.

c/ Source: Records of St. Stephan's Episcopal Mission, Fort Yukon.

d/ Includes an estimate of 30 for the white population not recorded.

persons, a level maintained with negligible change until 1940.<sup>11</sup> Thereafter, the population shot up rapidly, to about 440 in 1947 and 470 in 1949. Examination of the vital statistics available since the beginning of 1943 shows that about two-thirds of the rise in population, 1940-1949, can be ascribed to natural increase in the village, with the remainder representing net in-migration.<sup>12</sup>

In general, the Fort Yukon area is characterized by extremely high birth and death rates. Estimating a median population of 600 and an under-registration of births and deaths of 10%<sup>13</sup> gives a birth rate, 1943-49, of 58 per

(11) Ibid.; U. S. Department of the Interior, General Information Regarding the Territory of Alaska (1912), p. 11; ibid., (1931), pp. 12-13.

(12) This net in-migration took place prior to 1946, since detailed data for the period 1946-49 show 56 out-migrants (largely to Fairbanks and to Arctic Village in the Northern Barrens) compared to 23 in-migrants.

(13) This estimate is minimal. It should be noted that, for October 1947-June 1949, Fort Yukon village, with 70% of the population, occupied 80% of the hospital beds, while its hinterland, with 30% of the population, occupied only 7% of the hospital beds.

1000 annually, a death rate of 33, and, hence, a rate of natural increase of 25. The fertility of this population is extremely high. At Fort Yukon village in 1949 there were (Table III) 3.15 children 0-14 years of age for every woman 15 to 49 years old, compared to the 1950 ratios of 2.02 children per woman for all Alaskan aborigines and 1.00 children per woman for all Alaskan native whites, respectively.<sup>14</sup>

The mortality data in Table II also need some elucidation. It is important to note that only 12% of the children born alive died before reaching the age of 2; furthermore, the detailed records of the Hudson Stuck Memorial Hospital did not disclose a single case of maternal death in childbirth. Thus, the two greatest killers expectable in high mortality areas are absent. Instead, the most serious peril is tuberculosis, the cause of two-thirds of all deaths and of virtually everyone in the age group 2-64. This scourge persists despite lavish medical attention, an average of 11.5 days of hospitalization and 16 home calls per person in the total population of Fort Yukon between July 1948 and June 1949. The ineffectiveness of medical care here appears to stem from three causes: the extensiveness of infection, an evidence of which is the fact that, between July 1948 and June 1949 alone, 45 cases of tuberculosis were reported in the Fort Yukon area; the deleterious effects of poor and even submarginal living conditions in a harsh climate and with a work regime requiring prolonged exposure to extreme cold; and, thirdly, cultural factors, especially the practice of farming out the care of children (above all, girls) to older relatives, friends, and even strangers.

Table II

BIRTHS AND DEATHS REGISTERED  
AT THE HUDSON STUCK MEMORIAL HOSPITAL, 1943 TO 1949

Year	Live Births	Total	Deaths		From Tuberculosis
			Ages, 0-1	Ages, 65 +	
1943	28	15	5	0	5
1944	35	14	2	3	8
1945	27	23	5	1	20
1946	35	21	4	2	13
1947	31	24	6	1	20
1948	25	16	2	5	10
1949	24	5	1	1	3
(Jan.-June)					
Total:	205	118	25	13	79

The age and sex composition of the native households at Fort Yukon village reflects the effects of biological and migratory factors, particularly

(14) U. S. Bureau of the Census: U. S. Census of Population: 1950, Vol. II, Characteristics of the Population, Part 51, Alaska, Chapter C, Table 28 (Washington, D.C.).

over the period 1940-1949 (Table III).<sup>15</sup> In 1949, 37% of this population fell in the age group 0-9 and another 8% was 65 or older. The comparable figures for 1940 were 32% and 7% respectively. Thus the proportion of the fully dependent population had risen appreciably over the decade. In contrast, the sex ratio in 1949 was almost identical with that for 1940 (129), and even with that (129) recorded for the Kutchin generally at the time of discovery.<sup>16</sup> Clearly, some cultural habits die hard, even in the face of medical advances and social aid.

Table III

AGE AND SEX COMPOSITION OF NATIVE HOUSEHOLDS,  
FORT YUKON VILLAGE, 1949

Age in Years	Total Number	Per Cent Change (1940-1949)	Male	Female	Sex Ratio
0- 4	(85) <u>a/</u>	) +60 <u>b/</u>	(43) <u>a/</u>	(42) <u>a/</u>	(102) <u>a/</u>
5- 9	73	)	42	31	135
10-14	53	) +32	31	22	141
15-19	37	)	24	13	185
20-24	25	) - 8	16	9	167
25-29	19	)	8	11	73
30-34	17	) +23	8	9	88
36-39	20	)	9	11	82
40-49	40	(+43) <u>c/</u>	26	14	188
50-64	22	) (+29) <u>d/</u>	16	6	) 157
65+	32	)	17	15	)
<u>Total:</u>	423	+34 <u>b/</u>	240	183	131

a/ Adjusted for under-enumeration from vital statistics; the actual enumerations were 26 M, 35 F.

b/ The 1940 recorded figure has been raised by 10 to allow for under-enumeration at ages 0-4.

c/ Includes 2 persons of unknown age, 1940.

d/ Includes 3 persons of unknown age, 1940.

(15) The term "native household" is used for those in which any member is wholly or partly Indian or Eskimo. The distinction between "native" and "white" has been made for comparability with 1940 data. Culturally and economically, the fundamental distinction is between trappers and non-trappers; five, or nearly a third, of the white households are those of active or retired trappers, while in eight native households wage work (river pilot, wood chopper) and entrepreneurial activities (stores, road house, carpentry) have always been primary.

(16) Osgood, *op. cit.*

The indications of economic weakness revealed by the age composition of the native households of Fort Yukon are intensified by an examination of the sizes, types and dependency ratios of the households in the village (Table IV). A marked polarization of household type and size took place between 1940 and 1949. The percentage of native households made up exclusively of males or of females rose from 16 to 28%. Conversely, the proportion of very large households grew from 10 to 15%. In fact, only 53% of all the households in Fort Yukon in 1949 were of a conjugal, nuclear type. Furthermore, not quite half the households were characterized by reasonable ratios of males 15-64 to other persons. In other cases, there were no dependents, excessive numbers of dependents (7 to 9 per "able-bodied" male, i.e., one 15-64 years of age), or no "able-bodied" males. These abnormal conditions -- the shirking of responsibilities, the over-loading of a few household heads, and the great number of non-self-supporting households -- have been the results of the unfortunate biological concomitants of partially effective medicine, and of the social effects of inappropriate welfare policies operating in a particular economic and cultural environment. Welfare disbursements have become very large in relation to earned income in the community; they have been available only to persons over 65, to families with children but without able-bodied fathers, and

Table IV

## FORT YUKON HOUSEHOLDS BY SIZE, TYPE, AND DEPENDENCY RATIOS

		Number of Households		
		Native 1940	Native 1949	White 1949
I. Size:	1 person	9	17	7
	2-4 persons	31	31	10
	5-8 persons	27	26	3
	9 or more persons	7	13	0
	Total:	68	87	20
II. Type:	conjugal, nuclear	n.a.	42	13
	conjugal, extended	n.a.	7	0
	non-conjugal, bisexual	n.a.	13	0
	non-conjugal, males only	10	20	5
	non-conjugal, females only	1	5	2
	Total:	68	87	20
III. Dependency Ratios:	a/ 0	n.a.	14	2
	1-3	n.a.	25 b/	8
	4-6	n.a.	17 c/	3
	7-9	n.a.	9	0
	no "able-bodied" males	n.a.	22	7 d/
	Total:	68	87	20

a/ Number of all other persons to males 15-64 years of age.

b/ Of whom, one on relief as incapacitated.

c/ Of whom, three on relief as incapacitated.

d/ Of whom, two are self-supporting females.

(n.a. means that the data are not available.)

to disabled veterans; and high fertility and relatively low infant mortality have led to rapid increases in family size. These forces have, together, corroded the conjugal family, and promoted a polarity of able-bodied males, living alone or in small groups, and of composite households of old people, women and children. Clearly, demographic and economic factors have exercised an important influence upon the social structure of Fort Yukon.

## IV

The generation of income. The households of Fort Yukon village in 1949 may be grouped into five economic types, with other occupations, such as gardening and handicrafts, being only economic auxiliaries. The first consists of 49 households (272 individuals) dependent upon trapping, hunting and fishing; the second, of 13 households (52 persons), receives direct gratuities (Old Age Assistance, etc.) in addition to income earned through trapping, hunting and fishing. Other self-employed (store owners, bush pilots, carpenters, etc.) comprise the third group of 8 households, totalling 42 persons. The fourth consists of wage and salary earners (school teachers, officials, medical personnel, laborers, etc.), who total 13 households and 35 persons. And the fifth group of 24 households and 69 individuals is dependent upon gratuities: Aid to Dependent Children and Old Age Assistance. In all, the two most important sources of income at Fort Yukon in 1949 were trapping and hunting and fishing, which supported nearly 70% of the population wholly or to a predominant degree, and direct governmental relief, an important source of income to a quarter of the population.

The factors of production in the economic complex of trapping, hunting and fishing may be discussed briefly. To gain a livelihood in this fashion, a household must control a trapline of 20-100 miles in length (60-200 square miles) and have access to lake and marsh areas for catching whitefish and hunting moose and muskrats. Within the Fort Yukon region, the traplines and hunting-fishing areas appear to be rather homogeneous in bearing capacity, for a comparison of game and fish catches on 42 traplines disclosed no significant relations between the size of catch and the length (area) of the trapline, nor between the size of catch and general location (north of the Yukon and Porcupine, between the Porcupine and Yukon, and south of the Yukon, cf. Figure 1). In addition, air transportation charges in the Fort Yukon area are on a straight weight basis. Thus differences in land values, or in so-called imputed rents, play no role in the trapping economy.

Although the entire Fort Yukon region is largely a part of the public domain, both natives and whites clearly recognize the de facto individual or group titles to, and boundaries of, traplines. Hunting areas have a vaguer status, with all the members of a community, such as Fishhook Village, having equal access rights to nearby waters, e.g., Duck Lake. De facto title to traplines is most commonly gained (in 21 out of 38 established cases) by the improvement of abandoned or never occupied areas, through clearing trails, bulding line cabins and caches, setting out traps, etc.<sup>17</sup> A second

(17) The total number of recognized traplines in the Fort Yukon area in 1948/49 is estimated at 80, with about a quarter of the entire area being



source of title (in 12 cases) has been bequest or inheritance, in all but one instance from patrilineal relatives, specifically paternal grandfathers, fathers, stepfathers, an elder half-brother and a male (parallel?) cousin. The sole exception was one gift by a man to his son-in-law. Finally, five traplines were purchased, in all instances from non-relatives. The title to traplines is vacated through prolonged disuse or through death without heirs, usually patrilineal, capable of operating the trapline.

The control and operation of traplines and hunting-fishing areas is essentially a male prerogative, with only two out of 97 identified trappers being women and only one operating a line by herself (see Key to Figure 1). Most commonly (in 40 out of 63 cases) the trapline is a one-man enterprise; two-man partnerships characterize 17 others, while 6 are shared by three to six persons. There is also some partial sharing of lines and individual cabins, especially in Trapline Nos. 20-23. Trapline partnerships are largely confined to relatives, fathers and sons in 13 cases, brothers in 5, in-laws in 2, and non-relatives or unknown in only 3. In fact, rather extensive areas are dominated by single paternal lineages and their extensions: the Roberts (Nos. 2, 3, 8, 10) on the Chandalar, the Alexanders (Nos. 11-14) on the Christian, the Herberts (19-21, 23), on the Sheenjek, and the Jameses and Peters (18, 38, 51, 55-58, 61) largely in the Birch Creek area. The importance of paternal ties at Fort Yukon is a relatively recent phenomenon, for the aboriginal social organization was in matrilineal bands.<sup>18</sup>

In addition to land, trappers must have appreciable durable or fixed capital and working capital. The former comprises the trapline improvements already mentioned, and for each trapper, some 300-500 traps and snares, a half dozen hide stretchers, a sled or toboggan and 2 to 4 dogs, firearms (a 22-caliber rifle, a 30-caliber rifle, and a shotgun), one or two fishnets, a poling boat (with or without motor), Arctic clothing, and some household gear (e.g., blankets or a sleeping bag, kerosene lamp, dishes). At local prices, the fixed investment in a one-man trapline ran, in 1949, from \$1500 to \$2500. Furthermore, to undertake a season of hunting and trapping requires an initial credit or, more rarely, expenditure of \$500 to \$1500, the so-called outfit, which consists primarily of food, ammunition, traps, gasoline, kerosene and candles for use on the trapline. Trappers usually catch enough fish for two or three dogs, but additional ones require \$60 - \$100 each in bought food. Another variable item, although one of growing importance with recent declines in the number of work dogs, is airplane fare. Out of the recorded cases, 3 trapping households spent \$280 - \$450 on this item; 11 spent \$30 - \$110, and 7 spent nothing. Winter re-supply by air is of general importance, however, with an average

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unclaimed and another 15% or so belonging to inactive traplines. Under present conditions, with persistent over-hunting and repeated destruction by fire, it is probable that most of the unused area is unproductive, requiring a considerable period of rest. On the other hand, the fact that a number of traplines, particularly in the Black River area (Nos. 34-43), have been productive for very long periods indicates that sound management might make possible far more stable and intensive use of the wildlife resources of the area than exists today.

(18) Osgood, op. cit.

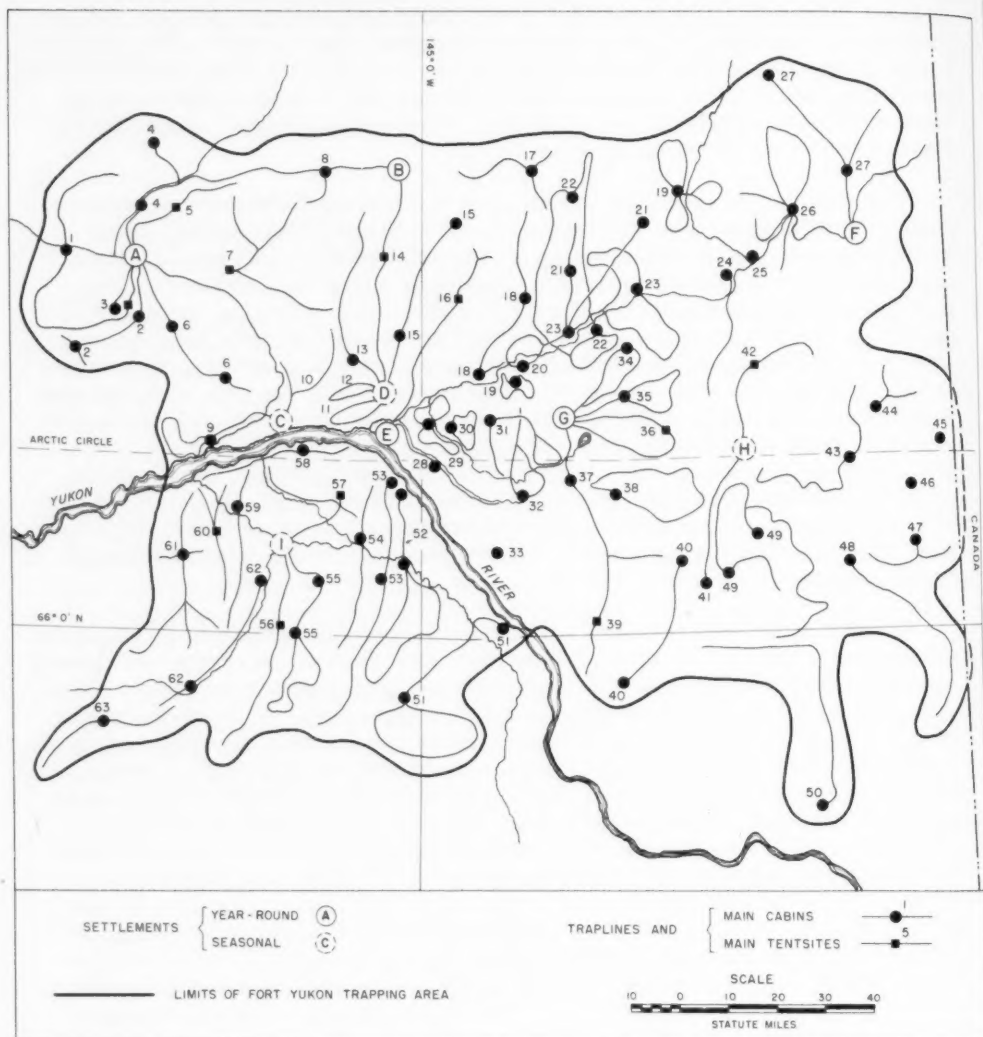


Figure 1. THE FORT YUKON TRAPPING AREA



Key to Figure 1  
FORT YUKON TRAPLINES, 1948-49

## I. Settlements:

Year Around

- A. Venetie
- B. Christian Village
- E. Fort Yukon
- F. Old Rampart
- G. Chalkyitsik (Fishhook Village)

Seasonal

- C. Fish Camp
- D. Twenty-mile Camp
- H. Salmon Village
- I. Birch Creek Village

## II. Traps:\*

- |                                |                                      |
|--------------------------------|--------------------------------------|
| 1. Steve Fredson               | 31. John Ross (f)                    |
| 2. Sam Roberts                 | Fred Ross (s)                        |
| 3. Myra Roberts                | 32. John Steven (f)                  |
| 4. John Frank (f)**            | Grafton Steven (s)                   |
| Hamel Frank (s)                | 33. Clifton Carroll                  |
| 5. Henry John <u>a</u> /       | 34. Ben Thomas (f)                   |
| 6. Joe Druck                   | Paul Ben Thomas (s)                  |
| 7. Jacob Flet (f) <u>a</u> /   | 35. Henry Williams                   |
| Solomon Flet (s)               | 36. Albert Williams                  |
| 8. Rufus Roberts               | 37. Daniel Horace                    |
| 9. Eric Isaac (f)              | 38. Moses Peter                      |
| Paul Eric (s)                  | 39. Esau Thompson                    |
| John Eric (s-st.s)             | 40. Charley Loola (b)                |
| 10. Chief Roberts              | Isaiah Loola (b)                     |
| 11. Alexander Alexander        | 41. Enoch John <u>e</u> /            |
| 12. Frank Alexander <u>b</u> / | 42. John Alexander <u>e</u> /        |
| 13. Elliott Johnson <u>b</u> / | 43. Peter Cadzow (f)                 |
| 14. Lott Alexander <u>c</u> /  | Abraham Cadzow (s)                   |
| 15. Robert Albert              | 44. Peter Semple                     |
| 16. Charley Johnson (f)        | 45. Harold Osterud                   |
| Fred Johnson (s)               | 46. Harry Sherman                    |
| 17. Art Schammell              | 47. Paul Henry                       |
| 18. Phillip Peter              | Steven Henry                         |
| 19. Percy Herbert              | 48. William Salmon                   |
| 20. Carl Moses <u>d</u> /      | David Salmon                         |
| 21. Sam Herbert (f) <u>d</u> / | 49. Fred Thomas (b)                  |
| Sam Herbert, Jr. (s)           | John Thomas (b)                      |
| John Herbert                   | Harry Thomas (b)                     |
| 22. Joseph Ward (ad.f)         | Emil Thomas (b)                      |
| James Ward (ad.s)              | Charley Thomas (b)                   |
| 23. Paul Herbert               | 50. Joe Carroll                      |
| 24. Simon Francis              | 51. John James <u>f</u> /            |
| 25. Charles Strom              | 52. Jacob Luke (f)                   |
| 26. Tommy Carroll              | Stanley Luke (s)                     |
| 27. David John (f-1)           | 53. Isaac Field (hf-b)               |
| John Enoch (s-1)               | William Thomas (hf-b)                |
| 28. Peter Wallace              | 54. Egil Salvison                    |
| 29. James Felix                | 55. Birch Creek James (f) <u>f</u> / |
| 30. John Jonas                 | Neil James (s)                       |
|                                | David James (s)                      |

- |   |  |
|---|--|
| 56. Titus Peter (b) <u>f</u> /<br>Herbert Peter (b)<br>Samson Peter (b)       | 61. Abraham Peter (f) <u>f</u> /<br>Simon Peter (s)<br>Nina Peter (d)<br>Paul Solomon (wi-b) |
| 57. Joe Peter (b) <u>f</u> /<br>Charley Peter (b)                             | Mardow Solomon (wi-b-s)<br>Paul Solomon, Jr. (wi-b-s)  |
| 58. Arthur James <u>f</u> /<br>59. Peter Williams (f)<br>Kenneth Williams (s) | 62. William Grinnell<br>George McCormick   |
| 60. Fred Paul   | 63. Nathaniel Englishoe  |

\* The names of all the trappers are real names and are included here by special request of the trappers themselves.

The lines used by the following trappers were unlocated: at Venetie, Walter John, Dan Frank; at Fish Camp, Neil Henry (Paul Eric's s-l), Isaac John, John Kelley; at Twenty-mile Camp, Sam Alexander; at Chalkyitsik, Jack Vanhatten, Paul Gabriel; at Salmon Village, Paul Kelley, Paul James. In addition, possibly a dozen active trappers have been completely missed.

\*\* Relationship between trappers on the same line, when known. The abbreviations are f, father; s, son; s-st.s, son's stepson; ad., adopted; f-l, s-l, father and son-in-law; b, brother; hf-b, half-brother; wi-b, wife's brother; wi-b-s, wife's brother's son; d, daughter.

- a/ Henry John is Jacob Flet's stepfather's brother.
- b/ Frank Alexander is Elliott Johnson's father-in-law.
- c/ Frank Alexander is Lott Alexander's father's brother.
- d/ Carl Moses is Sam Herbert's adopted son.
- e/ Enoch John is John Alexander's father's brother.
- f/ The elder Jameses and the elder peters are cross-cousins.

of 700 pounds or the equivalent of a second outfit being shipped to each trapper this way. In contrast to the initial outfit, however, re-supply is usually financed through the sale of furs rather than on credit.

Though the conditions of work may be very severe, the quantitative labor requirements of trapline operation are moderate. The occupational cycle embraces movement from, say, Fort Yukon to a satellite camp, such as Birch Creek Village, in mid-August or early September. During the fall, the trapper hunts moose and wild fowl, catches whitefish, chops wood, clears his trapline trails and repairs his line cabins. His womenfolk, if any, prepare and preserve food, dress hides and prepare clothing (especially numerous pairs of moose-hide mocassins<sup>19</sup> and mittens), and help care for the dogs. From November through February comes the season for intensive trapping, especially for marten, mink, fox and, later, beaver. Over this period the trapper makes the circuit of his traplines a half dozen times or more, each circuit being

(19) Rubber overshoes are an important present-day adjunct to mocassins, particularly in wet snow.

a three to ten-day trip in intense cold and darkness, sometimes without shelter other than a tent, and often on an empty stomach. If he can afford it, he flies to Fort Yukon for Christmas and the New Year potlatches. In March and April comes the muskrat season, a time of somewhat more social activity and better eating. By late May, he has picked up his traps and returned to Fort Yukon for summer loafing, broken by some salmon fishing with the help of a fish wheel,<sup>20</sup> or possibly by gardening or wage work. In all, the labor input in trapping, hunting and fishing probably does not exceed 180 days of effort per year.

The trapping economy of Fort Yukon is characterized by extremely high risks. Apart from serious occupational hazards, the trapper must face the possibility of rapid fluctuations in animal populations. Rabies, enzootic here, is especially menacing, since it strikes not only carnivorous fur bearers but also work dogs, who must be forthwith destroyed. The rabies epizootic of 1947-48, for example, was a major factor in reducing the average number of work dogs per native household to 2.2, compared with 4.9 in 1940.<sup>21</sup> Another uncertainty lies in the fur market, both in regard to over-all prices and the demand for particular animals, such as foxes or mink. In addition, every trapper may expect to lose heavily from fire. Finally, trappers have no protection against the governmental withdrawal of their trapping areas for game refuges,<sup>22</sup> nor are they compensated for the resultant loss. In general, the Fort Yukon trapper can confidently expect an economic disaster, say, one year out of four.

Given the high level of investment needed and the great risks, the returns from trapping are meager. In 1940, the average cash income, for 66 native households, derived from trapping was \$844 (\$183 per person). Given the general availability of income in kind at that time I would guess that the average native trapper was able not merely to stave off hunger but to accumulate a small surplus. But the income variations between these native households were enormous: for the ten highest-earning households the average was \$2063 or \$368 per person. By 1949, the average trapping family could no longer make ends meet, for even terms of trade much more favorable than in 1940 could no longer offset the growing deficit of caribou and other proceeds

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(20) Fish wheels, a white introduction from the Columbia River at the beginning of the century, are rafts provided with a large wooden mill-wheel, dip-buckets, a sluice and a catch-basket. The wheel is rotated by the river current and dips up surface-swimming salmon. In 1949, 18 fish wheels were in operation, all sited on the Yukon between Fish Camp and the Arctic Circle (Figure 1).

(21) The earliest mention of rabies on the Yukon was by J. C. Cantwell, Report on the Operations of the U. S. Revenue Steamer Nunivak on the Yukon River Station, Alaska (1899-1901), U. S. Treasury Document No. 2276 (Washington, 1902). See also R. B. Williams, "Epizootic of Rabies in Interior Alaska, 1945-47," Canadian Journal of Comparative Medicine, XVIII (1949), 136-143.

(22) In 1948-49, the Sheenjek River area, the traditional trapping land of the Herberts and others, was closed as a game refuge.

in kind. But great income variations have persisted. For example, though the average catch of muskrats for 34 households in 1948/49 was 152, this subsumed 5 catches of 400 to 800, 8 of 100 to 300, 7 of 50 to 80, and 14 of 0 to 40. In all, the fortunes of individual trappers need not follow the general economic ups and downs. Yet success over the long term is rare: in 1949, only two or three of the elderly trappers were independent. Old Age Assistance alone supported the others.

## V

Price mechanisms and the economic balance. Prior to World War II, the interior of Alaska beyond the railroad belt was characterized by a very high and unchanging level of prices for imported foods and manufactures. In December, 1930, food prices at Wiseman, 150 miles northwest of Fort Yukon, were 250% those of Baltimore;<sup>23</sup> Fort Yukon prices may have been 10 or 15% less than those at Wiseman. This difference not only represented substantial traders' profits under conditions of full or quasi-monopoly: it also covered high costs, including hidden interest, and heavy risks. The cycle between initial outlay and final financial return covered more than two years. The traders received their stocks only a year after they had placed their orders. They then released wares on credit to the trappers, receiving furs in exchange the next spring. That second summer the furs were shipped to Seattle or St. Louis and sold to wholesalers to end the cycle. Furthermore, the traders' profits derived almost wholly from substantial mark-ups, for the credits advanced to trappers bore no interest, while furs were, by custom, handled at little more than cost. Finally, the traders had always to allow for appreciable uncollectable debts, the results of death, illness or persistent bad luck.

In the years following, consumers' prices changed very little. In 1949, food prices at Fort Yukon were only 6% higher than those at Wiseman in 1930. The difference in food prices between Fort Yukon and the average city of the United States proper shrank to 65%. Actually, the price differential between Fort Yukon, accessible only by the river and by air, and Fairbanks, linked to the outside by rail, road and air, was only 12%, little greater than the differential between Fairbanks and Anchorage (10%).<sup>24</sup>

The bush pilot was the reason for this extraordinary change. He acted as a purchasing agent for the trappers, bringing them goods on consignment from Fairbanks at 10¢ per pound for transportation and services. Furthermore, with the bush pilot came the wholesale fur buyer, paying cash and good prices, often at the trapline cabin itself. These new circumstances not only created far more favorable terms of trade for the trapper than before, especially since fur prices rose by 120% over the decade 1938-1948, but also

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(23) R. Marshall, Arctic Village (New York, 1933), pp. 140-41.

(24) These relative price levels apply strictly to the U. S. Department of Agriculture minimum diets; data are lacking for rigorous linking with the Department of Labor cost of living indices.

gave rise to sharp practices on the part of some trappers who, while accumulating large debts with local traders, would spend their earnings on direct cash purchases from Fairbanks.

The total changes in price relationships which have been described had basic effects on the economy of Fort Yukon. They permitted the trappers to shift increasingly from an economy in kind to a market economy as game resources declined. At the same time, they greatly weakened the financial position of the traders.

In the spring of 1949, fur prices collapsed, dropping on the average by some 30%. In addition, the Porcupine River flooded Fort Yukon, which caused heavy losses only partially remedied by the efforts of the American Red Cross.<sup>25</sup> These shocks marked the end of a decade of apparent prosperity.

In 1949, the economic balance at Fort Yukon was extremely unfavorable. The community's gross expenditures are estimated to have been \$420,000 or about \$900 per capita, with over 70% of this sum representing cash outlays (largely at the three stores). (Table V.) By end-use, the most important expenditure was human food, which took \$180,000, or 43% of the total. Yet even this was not enough: to have met the U. S. Department of Agriculture Minimum Diet levels for the community would, at local prices, have meant an expenditure of some \$240,000,<sup>26</sup> or a third more. The next largest expenditure was for clothing, which came to some \$47,000, or 11% of the total. Rough calculations at local price levels indicate that this was, on the average, about enough to meet minimum requirements (with the extensive use of customary low-cost substitutes, e.g., cotton drill, feather-stuffed, blanket-lined parkas). Three other sectors of consumption -- rents and utilities, transportation (including dog food), and medical services -- were almost as significant as clothing; together, they constituted almost 29% of the whole. Among the remaining items, the high use of tobacco is noteworthy.

The average figures for the community imply a low standard of living. Indeed, since substantial variations in expenditure level existed between households, conditions were often submarginal. Among more than a fifth of the households, especially large trappers' families, per capita food consumption approximated in value only one-third of that required for the Department of Agriculture minimum diet. In such households, the average diet for adults and children alike consisted of 1.5-2.5 pounds of food per day, divided by weight about as follows: flour, 33%; sugar, 24%; canned milk, 19%; game and fish, 12%; dried fruit, 6%; lard, 3%; and other foods, 3%. Among these

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- (25) The American Red Cross, under the able field direction of Miss Helen Cass, financed and directed the reconstruction of 31 destroyed or damaged cabins, as well as providing for the replacement of much essentially productive property, especially sewing machines.
- (26) The weekly per capita costs of this minimum diet at Fort Yukon in 1949 were \$11.80 for adults; \$9.70 for adolescents, 10-14; and \$6.65 for children aged 0-9.



Table V

CASH OUTLAYS AND CONSUMPTION IN KIND,  
FORT YUKON, JULY 1948 TO JUNE 1949

Category	Dollars	Per Cent
1. Cash outlays (by destination):		
a. Purchases from traders	\$ 218,000	52
b. Hospital bills	3,000	1
c. Miscellaneous other goods and services locally purchased	(45,000)	11
d. Outside expenditures (mail order, taxes, etc.) and savings	(33,000)	8
<u>Sub-total</u>	<u>\$ 299,000</u>	<u>71</u>
2. Cash outlays (by end use):		
a. Food	\$ 150,000	36
Of which, dog food (\$ 20,000)		
b. Clothing	40,000	10
c. Transportation and engine fuel	15,000	4
d. Traps, ammunition, etc.	8,000	2
e. Kerosene, firewood, electricity, water hauling	15,000	4
f. Recreation	12,000	3
g. Tobacco	5,000	1
h. Miscellaneous goods and services	15,000	4
i. Debt service, taxes and other	39,000	9
<u>Sub-total</u>	<u>\$ 299,000</u>	<u>71</u>
3. Consumption in kind:		
a. Food	\$ 54,000	13
Of which, dog food (\$ 5,000)		
b. Medical services	30,000	8
c. Parkas, mittens, mocassins and snowboots	7,000	2
d. Other manufactures, firewood and water hauling	10,000	2
e. Imputed rents of owner-occupied houses and traplines	20,000	5
<u>Sub-total</u>	<u>\$ 121,000</u>	<u>29</u>
TOTAL --	\$ 420,000	100

Note: All prices are actual market prices at Fort Yukon, 1948-49.

households and those dependent upon gratuities, it was by no means exceptional, during the winter months, to have children rely upon free school lunches as their only meal. Under such circumstances, enormous mortality, let alone poor school achievement, is inevitable.

Nevertheless, Fort Yukon in 1948-49 was not making its way economically even at these low levels. The total resources available were slightly

Table VI

RESOURCE AVAILABILITY AND INCOME PRODUCED  
AT LOCAL MARKET PRICES, FORT YUKON (JULY 1948-JUNE 1949)

Category	Dollars	Per Cent
1. Salaries and business profits (U. S. govt., Mission, traders, bush pilots, etc.)	\$ 60,000	14
2. Regular wages (U. S. govt., Mission, odd jobs, water hauling, woodchopping, domestic service)	25,000	6
3. Red Cross wages and disbursements <u>a/</u>	3,000	1
4. Handicrafts (sale profits)	2,000	-
5. Trapping, hunting and fishing:		
Gross cash income	\$ 130,000	
Income in kind	+ 65,000 <u>b/</u>	
	\$ 195,000	47
6. Imputed rents of owner-occupied houses and traplines	20,000	5
7. Gratuities:		
Cash payments	\$ 34,000 <u>c/</u>	
Free medical services and food	+ 36,000	
	\$ 70,000	17
8. Credits written off as bad debts <u>d/</u>	45,000	11
9. Deduction: Net flood losses, 1949 <u>e/</u>	- 10,000	- 2
RESOURCES AVAILABLE	\$ 410,000	100
10. Deductions (transfer items):		
Gratuities (item 7)	- \$ 70,000	
Bad debts (item 8)	- 45,000	
	- \$ 115,000	- 28
GROSS INCOME PRODUCED	\$ 295,000	72
11. Deduction: Trapline costs, - \$ 50,000 <u>f/</u>	- 50,000	- 12
NET INCOME PRODUCED	\$ 245,000	60

a/ Paid for work replacing houses lost in the May 1949 flood.

b/ Flesh, hides, manufactures, and firewood for home consumption.

c/ Old Age Assistance, Aid to Dependent Children, etc.

d/ By three stores.

e/ Residual losses of clothing and equipment after Red Cross replacement of housing, stoves, beds, blankets, etc.

f/ Of which, dog food, 50%; other transportation and engine fuel, 20%; traps, ammunition, weapons, snowshoes, etc., 16%; tentage, blankets, and clothing, 10%; miscellaneous, 4%.

less than the expenditures, since some \$10,000 in flood losses in 1949 were not made up (Table VI). Even more important is the fact that more than a quarter of these resources were unearned, either formal gratuities or else credits advanced by the stores and written off as unrecoverable. Of the gross income produced in cash and kind, about two-thirds derived from the complex of trapping, hunting and fishing. But trapline costs were so heavy (one dollar out of four earned) that trapping contributed less than 60% of the community's net earned income, which in turn constituted only 60% of the total resources available.

## VI

Let us now turn to an interpretation of the facts presented.

1. Basic features of the economy. Fort Yukon and allied villages within its trading and service area depend upon the exploitation of a hinterland of some 17,000 square miles, a ratio of about 26 square miles to each resident. Furs (marten, mink, muskrat, and beaver), hides and flesh (moose, muskrat and fish), and timber (for building materials and firewood) are the essential exploited resources; gardening, though feebly developed, has important potentials for subsistence. Commercial opportunities in the Fort Yukon area, for farming or otherwise, appear negligible.

The trapline, an area of some 150 square miles with developed trails, ascertained game burrows, and spaced cabins or tent sites, is the basic unit of this economy. In local customary law the title to traplines is gained through personal clearing, through bequest from patrilineal relatives, or through purchase. Most often, it is held individually; joint title is almost wholly confined to men related patrilineally. Patrilineal relatives tend also to operate contiguous traplines. This emphasis upon patrilineal descent is a new feature in Fort Yukon society, which was matrilineal in aboriginal times.

Trapline operation is confined almost entirely to men. Its major features include large requirements for fixed and operating capital, met in large part by credits from traders. The economic risks in trapping are high and numerous, with failure expectable about one year out of four. On the other hand, the labor input needed is small, with even the men devoting not more than half the year to work; seasonally at least, a labor surplus exists.

2. Economic trends, 1940-1949. Through the decade of the 1940's, the most important factors of change appear to have been the steady and grave decline of game, especially caribou, on the one hand, and the operation of compensating forces, on the other. The latter included a marked improvement in local terms of trade through the reduction of isolation (the airplane and radio); and a sharp rise in gratuitous financial and medical aid, especially to families lacking able-bodied men and to the aged.

The major changes over the decade comprised increased dependence upon money (seventy per cent of all consumption in 1949) and a consequent sensitivity to market changes (in 1949, a 30% fall in fur price levels led to an income-to-expenditure gap of corresponding magnitude). The death rate

has remained high (33 per thousand), with tuberculosis and chronic malnutrition as the major immediate and ultimate causes. The excessive mortality of young girls has also continued, so that the sex ratio in 1949 was still at the century-old level of 129. A very high birth rate (58 per thousand) has resulted in an average natural increase of 25 per thousand annually. Since infant mortality has been relatively low, this increase has been largely concentrated in the group aged 0 to 9 years, which has risen from 32% of the total population in 1940 to 37% in 1949. The increasing burden of dependents has been met, in many cases, by dissolution of the family, with the mother and children being thrown on relief. Today, less than 60% of the households are of conjugal type; 15% consist of able-bodied males without dependents, while a quarter completely lack a bread-winner. In all, while outside forces prevented physical catastrophe in Fort Yukon during the 1940's, the adverse combination of economic and demographic forces operative promoted serious social and moral disorganization.

3. The alternatives open. In broadest terms, the alternatives are a population decline to a level consonant with resources and the old economic system, or ever-increasing dependence upon outside gratuities, or a reconstruction of the economy. The first may be largely ruled out, since continuing welfare measures limit rises in mortality; fertility is not likely to be controlled in the foreseeable future; and out-migration on a large scale is improbable. The adjoining rural areas of Alaska are equally distressed, so that the urban areas alone offer better economic opportunities. But transportation costs to Fairbanks or Anchorage are high, and even there the work is largely seasonal, and the competition to men in poor health and with little schooling all too fierce. The second is, in the short run, most probable. The third course, while difficult, is fully possible.

As I see it, economic reconstruction should be based upon four foundations:<sup>27</sup> (1) Subsistence gardening and, later, swine raising on a scale sufficient to meet the food deficit. Ecologically feasible, this involves investment, training and guidance in agriculture and home economics. This might well become the central objective of local education. (2) The stabilization and gradual improvement of trapping, hunting and fishing. Essential here are the legal protection of equities in traplines, on the one hand; on the other, the re-orientation of the governmental role from that of the game warden and sportsman's guide to that of scientific manager of vital and productive resources. (3) A modernization of the financial structure of trapping, with the creation of sources of working capital independent of the trader. (4) A more flexible administration of welfare, better integrated with the total social and economic picture at Fort Yukon.

## VII

The case study presented has intrinsic interest, but the basic purpose of this paper is methodological. The step-by-step exposition of the procedures

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(27) These recommendations were submitted by letter to Mr. Ralph Browne of the Alaska Development Board (letter of August 7, 1949), and amplified in Shimkin, "General Report" and Fort Yukon, *op. cit.*

followed, from the criteria determining the research site to the final, policy-oriented interpretations, will serve, I hope, to give anthropologists further control of economic concepts and methods. In my opinion, the approach illustrated provides a dynamic picture of the economy and a reasonably firm base for corrective recommendations. Furthermore, it throws considerable light upon the interrelations between the economic and the other cultural sectors, notably social structure.

Many pitfalls exist in this type of research. First, the investigation must embrace all the institutions, mechanisms and relationships operative on a significant scale in the economy studied. As shown for Fort Yukon, external factors such as the terms of trade or governmental welfare measures may exercise an enormous influence; consequently, a study limited only to the native community or to traditional inter-relationships alone may be critically defective. Second, the specific methods and forms used must be adapted to local conditions, preferably after a fair qualitative understanding of the environment and the society have been gained. Such adaptations, the gathering of the data, and their compilation, validation and interpretation are very laborious tasks for which adequate resources should be allocated. Third, great dangers inhere in the premature extrapolation of the scientific results and, especially, the recommendations to other, partially similar communities. For example, virtually all of rural Alaska has suffered from a severe depletion of fish and game, and has been marked by high fertility and mortality, inadequate food production, uncertainties of property tenure, and high-cost capital. Nevertheless, the Yukon valley, the Arctic slope, the Bering Sea coast, the Aleutians, and southeastern Alaska all have sharply distinctive local configurations of resources, problems and alternatives. Thus, in contrast to the Fort Yukon area, southeastern Alaska has important potentials for industrialization. And fourth, economic studies can provide some but not all answers. Why, for example, the people at Fort Yukon have not, long ago, greatly intensified their gardening can be elucidated better in terms of culture and personality than economics.

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## WAGES IN INDIA\*

Study of the manner in which changes in the level and types of payments for services are operative in the allocation of human resources in under-developed countries has been frustrated because of the lack of satisfactory wage statistics. Indeed, the story told by Sir Josiah Stamp of how a judge reprimanded Harold Cox, for quoting Indian statistics in court -- "the governments collect them, add them, raise them to the  $n$ th power, take the cube root and prepare wonderful diagrams. But what you must never forget is that every one of those figures comes in the first instance from the chaukidar, the village watchman, who just puts down what he damn pleases" -- has spread widely. But modern Indian wage statistics are not collected exclusively by the chaukidar. Some of the available data have been collected and processed with great care. Nevertheless, the majority of the available statistics are collected haphazardly, often non-comparable and unclear in coverage and definition. Available data do, on the other hand, provide the base from which certain inferences can be drawn and from which generalizations as to the over-all nature of the wage structures can be formulated.

This essay proposes to present a few statements of general nature relating to the existing wage structure in India. The article is divided in two major sections: the first section includes general statements as to the level of Indian wages, wage differentials and wage changes over time; the second is a more detailed description of wages in selected industries.

### The Remuneration of Indian Workers

Systems of wage payments. The form of payment for labor in India varies considerably from place to place and from industry to industry because of the persistence of indirect payment -- where the contractor or the sirdar ("boss" or gang leader) is paid a lump sum which he then divides among the workers -- and because of the prevalence of payment in kind, the extension of concessions to the workers and the use of subsidies. Generally the workers' earnings are made up of two units: the basic wage and the "dearness allowance" or cost of living bonus. To these basic items are added bonuses such as the profit bonus, attendance bonus, efficiency bonus, and others.

Great variations exist in pay periods although, of late, there has developed greater uniformity of wage payment periods. Until 1930 virtual chaos existed with delays in payment being widespread. Employers occasionally withheld payment for two or three months in the hope of reducing the worker's ability to take off for the village upon payment of the wages coming to him. With the

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\* Although responsibility for the contents of this article obviously rests with the author, it gives him great pleasure to recognize the aid of Mr. Herbert Brown, Graduate Student in the New York State School of Industrial and Labor Relations, in the collection of the data and in working on the first draft of this article.

passage of legislation regulating wage payments,<sup>1</sup> a limit of one month has been established as the longest pay period.

Payment by time and by piece or task are about equally common with a very slight tendency for piece work payments to increase over time. Piece work payment is widespread in the textile industry, in plantation and in mining while time rates predominate in steel, engineering, and government-owned ordinance factories.

Wage deductions, just as wage additions, are more common in India than in Western countries. Fines are considered as the most useful way of enforcing discipline and are liberally applied; monies so collected are generally diverted to workers' welfare funds. Wage additions, as bonuses or in other forms, are used as incentives or, more often, to subsidize the worker or his family and to increase his real wages. Additional payments are often in kind, a grain allowance, or in services, a rent allowance.

The multiplicity of the components of the worker's earnings stresses the relatively small part played by the basic wage in his total income. See Table I.

Wage movements. The establishment of tea and coffee plantations, the building of railways and the opening of factories and mines which occurred between 1830 and 1860 allegedly led to a doubling of wages throughout India.<sup>2</sup> This phenomenon, while distinctly observable in some areas,<sup>3</sup> industries and occupations, does not seem to have been universal. The fact that cash wage income came into being just at this time permits us to interpret the reported doubling of wages as an indication of the establishment of differentials between agricultural and industrial wages as well as an indication of a general increase in the wage level.

From 1860 to 1895 "wages were almost stationary with an advance of between five and ten per cent towards the end of the period . . ."<sup>4</sup> In this period wage stability was a universal phenomenon with only very minor differences from industry to industry and from center to center.<sup>5</sup>

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- (1) Payment of Wages Act, 1936 and Minimum Wages Act, 1948.
  - (2) Buchanan, The Development of Capitalist Enterprise in India (New York, 1934), pp. 319-320.
  - (3) This was particularly the case in skilled jobs and construction activities.
  - (4) Buchanan, op. cit., p. 332.
  - (5) The wage stability of the period is noted by others, e.g., Prices and Wages in India, 36th issue (Indian Govt. Press, 1892), pp. 208, 211, and by the report that wages of coolies and carpenters, which had been reported as having doubled between 1830 and 1860, were in 1892 slightly below what they had been in 1860. See Parliamentary Papers, XXVI, Pt. V, Cmd. 6795-XI, p. 128 as quoted in Buchanan, op. cit., p. 320.

Table I. SYNOPTIC TABLE OF WAGE PAYMENT SYSTEMS  
SHOWING BASIC WAGE AS A PROPORTION OF TOTAL PAYMENTS

Industry and Location	Pay		Time (T) or Piece (P)	Dearness Allowance	Bonus a/	Payments in kind	Basic wage as an approximate proportion of total wages paid in %
	Period Week (W) or Month (M)	Month (M)					
PLANTATIONS Assam S. India COAL MINES Bihar Madhya Pradesh Assam	W	W	P/T	Flat rate set 5/1/48		food allowance	80
	M	M	P/T	Flat rate set 5/1/48	some	food allowance	85
	W/M	W/M	P/T b/	Rate varying with wage	A-4 months	grain allowance	25 to 50
	W/M	W/M	P/T b/	Rate varying with wage	A-3 months	food allowance	25 to 50
	M	M	P/T b/	112½% of basic wage for underground workers, rate varying with wage of others	A-4 months	food allowance	30 to 50
	-	-	T	20% of basic wages	B-1 month	clothing allowance	50 to 60
GOLD MINES - Kolar COTTON TEXTILE Bombay Ahmedabad Madras	M	M	P/T	Rate tied to cost of living	A	housing (some mills)	33 to 55
	hapta c/	W	P/T	Rate tied to cost of living	A	-	20
	W	W	P/T	Rates tied to cost of living	B-15% of W	-	-
	2W	M	P/T	Flat rate of 32 Rs.	none	part of dearness a.	50 to 65
JUTE TEXTILE Calcutta (W. Bengal) Cawnpore (Kanpur) S. India Bihar ENGINEERING Bombay	M	M	P/T	Rate tied to cost of living	C	food allowance	-
	M	M	P/T	Rate agreed upon each mo.	none	-	-
	M	M	P/T	6 1/4% less than Calcutta	-	-	-
	M	M	T	Rate tied to cotton textile but about 50% more	-	none	25 to 35
STEEL & METALS d/ Bihar CEMENT	M	M	T	Rate varying with wage	-	-	35 to 50
	-	-	-	Rate tied to wages with stated minima	B-varying % of profit	housing allowance	45 to 55
	M	M	T	No pattern	A	-	-
	M	M	T				

a/ Great variety exists in the manner and conditions in which bonus is given: A is used to denote cases in which bonus is granted provided satisfactory attendance or other moderating conditions have been established; B indicates a profit bonus granted regardless of moderating conditions; C indicates a condition in which very few concerns in the industry are reported granting a bonus. The figures following the code letters are averages.

b/ All underground workers are paid on a piece rate.

c/ A period of 14-15 days.

d/ See below: section on steel wages for details.

Real and money changes in prices and wages between 1890 and 1912 were studied by K. L. Datta, who found the period to have been marked by wage increases throughout India; wages increased on an average of 50 per cent, with those in mining rising even more.<sup>6</sup> Much of the increase can be attributed to the developing shortage of industrial labor and to changes in the value of the rupee resulting from contemporary changes in the prices of gold and silver.<sup>7</sup>

Wage increases between 1912 and 1930 were irregular as to industries, areas and periods. Until 1918, wage increases lagged behind price increases. Between 1918 and 1921 there were considerable wage increases in almost all industries, ranging from 80 to 130 per cent.<sup>8</sup> After 1921 employment was irregular and few wage changes were reported until 1930.<sup>9</sup> Occasional downward adjustments in wages were reported for the period between 1930 and 1939, but the general wage level remained unchanged.<sup>10</sup>

The years from 1939 to date are, on the other hand, characterized by increases gradual and steady first, sudden and jerky later. See Table II. The Bombay cotton textile industry, for example, showed wage increases of almost 100 per cent between 1942 and 1943. Wages in other industries and other areas maintained the same pattern with "... a kind of uniformly increasing trend, although sometimes the increase between 1941 and 1943 is slightly more than proportionate when considered along with increases in the earlier years."<sup>11</sup>

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The protracted wage stability of the years between 1860 and 1890-1894, a period of considerable industrial expansion, lends confirmation to the thesis that differentials between agricultural and industrial occupations had been introduced in the previous period. In addition, the differentials appear to have been sufficiently wide as to permit the attraction of skilled workers necessary for the expanding economy of the period. See D. R. Gadgil, The Industrial Evolution of India (Calcutta, 1950), pp. 70-84.

- (6) Krishna Lal Datta, Report on the Enquiry into the Rise of Prices in India (Calcutta, 1915), Vols. I-V, particularly I, 169-171.
- (7) G. B. Jathar and S. G. Beri, Indian Economics, A Comprehensive and Critical Survey (Madras, 1949), II, 236-310 and particularly 245-246.
- (8) Gadgil, op. cit., p. 282.
- (9) Report of the Royal Commission on Labour in India, 1931 (Delhi, 1933), p. 196.
- (10) The thirties have been found by the Rege Committee to be a period during which "It is clear that so far as the basic level is concerned it has undergone little or no change in most organized industries." Labour Investigation Committee, Main Report (Delhi, 1946), p. 277.
- (11) Average annual earning in the Bombay cotton textile mills being 373, 382, 412, and 823 rupees in 1939, 1940, 1941, and 1943, respectively. See M. V. Seshagiri Rao, "Wage Differentials in India," Indian Labour Problems, in A. N. Agarwala, ed. (London, 1947), pp. 48-56; quotation from p. 51.

Table II

CHANGES IN THE INDEX OF AVERAGE ANNUAL EARNINGS  
OF WORKERS IN SELECTED INDUSTRIES\*(100 = Rs 325.5, the 1939 average for the six  
industries listed in the table)

INDUSTRY <u>a/</u>	1939	1941	1943	1945	1947	1948	1949
Cotton Textiles	98.4	105.6	210.0	222.2	279.3	336.2	366.5
Jute Textiles	70.9	78.7	109.2	119.9	152.9	195.9	244.2
Engineering	80.9	114.1	162.5	200.6	214.6	270.1	288.2
Minerals and Metals	140.5	146.3	154.2	184.9	272.3	327.2	349.1
Gold Mining	98.1	109.3	141.2	166.4	254.4	245.1	196.2 <u>b/</u>
Ordinance Factories	111.2	131.9	162.0	197.5	232.0	282.0	347.0
All Industries <u>c/</u>	88.3	99.7	161.3	183.0	226.4	273.3	305.2

\* Source: Indian Labour Yearbook, 1949-50 (Delhi: 1951), pp. 212, 218.a/ Only perennial factories considered.b/ Low figure due in part to a prolonged strike.c/ Includes also industries not represented in above table and does not include mines.

Since 1947, changes in wages have been more uniform than before and their rate of growth is decreasing.

Opinion as to the impact, in real terms, of the five-fold wage increase that has taken place since 1830 is divided. It is certain that real wages have increased much less than money wages. Real incomes remained stationary until the turn of the century; up to 1912 they increased more than prices.<sup>12</sup> As one would expect, the real wages of workers employed during the 1930's increased, also. In 1936 the price level stood at 102 (1914 = 100), while in 1921 it had been 174. This marked decline in prices was not followed by substantial wage reductions, and by 1936 a substantial margin had developed favoring the

(12) Datta, *op. cit.*, *passim*; note also "On the whole labourers as a class have done very well and statistics show clearly that this is the labourer's day." (I, 171.)



employed workers.<sup>13</sup> After 1939, changes in dearness allowance have kept real wages almost at the 1939 level.<sup>14</sup>

Whether or not the changes in wages have kept pace with price changes, there is no doubt that Indian wages on the whole are extremely low. The low wages of the Indian workers are traditional. Survey after survey, study after study, has emphasized this fact. The measured words of the Labour Investigation Committee bear repeating:

"Our surveys, however, will bring home to any reader the fact that the basic wage level in most Indian industries is extremely low . . ."<sup>15</sup>

and the situation is aggravated further by the fact that

"considering the question broadly, little or nothing has been done by the principal industries in this country to revise in an upward direction the basic wage of their operatives except where the employers have been forced either by Government or by labour . . ."<sup>16</sup>

International wage comparisons confirm the low wage level of the Indian worker. Comparing, for example, the hourly earnings of Indian textile workers during 1947-48 with the hourly earnings of American textile workers, we find that the first were paid on the average between 9.4 and 12 U.S. cents, while the latter were paid between 104 and 106 U.S. cents. This comparison minimizes the difference because while in the United States textile workers' earnings are particularly low in relation to the wages of other industrial workers, the earnings of Indian textile workers are above the average for all Indian industries. Comparison in terms of an index of real hourly earnings with a base of 100 for the United States, shows 22 for India's textile workers in 1947 and 25 in 1948. Only in Columbia, Egypt, Hungary, Italy, and Japan were textile workers paid less than in India.<sup>17</sup>

The wages of skilled workers. India suffers from a great shortage of skilled labor. Statistical verification of its extent is impossible but all indications point to its existence. Industrial leaders and the government have often expressed their concern about the situation and steps are being taken to

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(13) P. Banerjee, A Study of Indian Economics, rev. ed. (London, 1940), pp. 130-131.

(14) Punekar is more pessimistic: "Inadequacy of basic wages and of dearness allowance has forced earnings to lag behind prices since 1939 with the result that the actual purchasing power of the increased earnings in terms of goods is lower now than it has been in 1939." See S. D. Punekar, Industrial Peace in India (Bombay, 1952), p. 28.

(15) Labour Investigation Committee, *op. cit.*, p. 367.

(16) *Ibid.*, p. 368.

(17) ILO, Textile Wages, An International Study (Studies and Reports New Series, No. 31, Geneva, 1952), pp. 6-7, 11, 14, 18-19, 46-47.

overcome it. Training schemes, apprenticeship systems, and technical schools are being established throughout India to satisfy the demand for skilled workers.

Money incentives, which have always been considered a major method to increase the supply of skilled workers, are operative in India as in the rest of the world, although not with the same impact.<sup>18</sup> With higher wages and higher skill comes a higher social status which in some cases may even lead to a change in caste; the situation of the higher paid worker improves all around.<sup>19</sup>

Wage differentials of skilled and unskilled workers vary from center to center and from industry to industry. In some cases, such as among the Ahmedabad textile workers, differentials between the highest and the lowest (as far as skill content) occupational classifications are as low as 24.6 per cent of the higher rate, while in other cases the differential is as marked as 395.6 per cent -- the average basic wages of the "turners" of the Tata Iron and Steel Works is Rs. 89 per month while common labor is paid Rs. 22 per month. In general, skilled workers throughout Indian industries are getting about 150 per cent more than the unskilled workers.

Precisely how much differentials have changed over time cannot be determined. Scattered data show that Indian industries are passing through a period of narrowing wage differentials. This is more noticeable in the older industries, such as jute and cotton textiles, and almost unnoticeable in the newer industries, such as steel and cement.

The period prior to 1890 was one in which differentials increased in all industries. Datta's work indicates that in the later period, which he studied, differentials moved selectively, widening in some industries, narrowing in others. In Bombay cotton textile differentials increased slightly, moving from 225 to 265 per cent; almost the same occurred in railways, where differentials broadened from 238 to 275 per cent. On the other hand, the differentials in jute narrowed markedly during the period 1890 to 1912, from 502 to 328 per cent.

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(18) The importance of wage incentives is different in India from what it is in the West, but it is probable that higher wages appeal to Indian workers and occasionally spur them on to greater exertion. See Harold Butler, Problems of Industry in the East (ILO Studies and Reports Series B, No. 29, Geneva, 1938), p. 23. "... the managements energetically rejected the allegation frequently made in some quarters that workers are indifferent to higher wages or preferred longer hours at a slower pace." See also R. Mukerjee, The Indian Working Class, 2nd ed. (Bombay, 1948), pp. 221-240.

(19) "Even in the matter of intermarriage changes are appearing. A Brahmin is preparing to give his daughter in marriage to a Thakur (lower class) apparently because the latter is making good money as a clerk, while he, the Brahmin, would not be able to provide a large enough dowry if the girl were to be married to another Brahmin." Gardner Murphy, In the Minds of Men, The Study of Human Behavior and Social Tensions in India (New York, 1953), p. 103.

Differentials in industrial jobs as a group widened from the last half of the nineteenth century to World War I, remained steady for a period, and have been narrowing since.<sup>20</sup> The recent war-born prosperity and the egalitarian drive characteristic of the new republic, formally embodied in the Draft of the Five Year Plan,<sup>21</sup> added impetus to the narrowing of differentials. It is possible that the momentum will be slowed down through the introduction of more formalized personnel policies permitting the worker to demonstrate his ability and therefore encouraging the employer to maintain relatively wide differentials to foster the development of skills and the display of workers' individual initiative. A change in the present policy, which freezes wages but fosters increases in the dearness allowance, would be necessary to stop the current tendency towards greater narrowing of differentials.

Industrial wage differentials. The average earnings of workers in the plastic industry are the highest, followed by those of workers employed in the steel industry and government mints. Among those paid the least are the coal miners, the gold miners, the wood workers, stone and quarry workers, and those in tea plantations.

The relative wage positions of industrial workers have fluctuated widely over time. See Table III. Workers in the newer and expanding industries have almost always led the wage procession. Table III, although based on very scanty information, shows not only which were the highest paid workers at any given time but also provides the reader with a schematic history of Indian industrial development. Note, for instance, the decline in the relative importance of tea plantations in the Indian economy since the turn of the century and plantation labor's consistently low rank. The fluctuations in the earning position of the cotton workers tell the story of the development of the cotton industry. Their recent relatively high rank is the result of the expansion of the Indian cotton industry during World War II when it temporarily held control of many foreign markets previously controlled by the Japanese. The relative wage position of cotton and jute textiles is discussed in some detail below.

Regional wage differences. "Broadly speaking, it may be said that wages (in India) are comparatively inelastic. They are not even half as responsive to changes of circumstances as in Europe and America. Wages no doubt fluctuate on either side of the customary rates, but such fluctuations are always confined within narrow limits."<sup>22</sup> If this broad generalization appears

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(20) Broadly speaking, the same trend can be seen in American industry, where wage differentials have been narrowing almost constantly since 1907. See H. Ober, "Occupational Wage Differentials, 1907-1947," Monthly Labor Review, LXVII, No. 2 (August, 1948).

(21) "All wage adjustments should conform to the broad principles of social policy that disparities of income have to be reduced to the utmost extent. . . . Another important facet of wage policy is the progressive reduction of occupational and regional disparities . . ." Indian Planning Commission, The Five Year Plan, A Draft Outline (Delhi, 1951), p. 182.

(22) Banerjee, op. cit., p. 128.

Table III

INDUSTRIES RANKED ACCORDING TO THE LEVEL  
OF AVERAGE YEARLY WAGES PAID\*

1890	1900	1910	1939	1949
Construction <u>a/</u>	Mining <u>b/</u>	Engineering	Minerals & Metals <u>c/</u>	Mints
Papermaking	Engineering	Mining	Mints	Cotton
Railways	Jute	Printing	Ordinance	Minerals & Metals
Cotton Textile	Leather	Wool	Paper & Printing	Ordinance
Printing	Sugar	Jute	Cotton	Engineering
Tea Plantations	Construction	Paper	Gold Mining <u>d/</u>	Paper & Printing
Mining	Cotton	Construction	Leather	Leather
Jute	Wool	Leather	Engineering	Jute
Wool	Paper	Railways <u>e/</u>	Chemicals <u>f/</u>	Chemicals
Sugar	Printing	Cotton	Jute	Gold Mining
Leather	Railways	Sugar	Wood, stone & glass	Wood, stone & glass
Brewing	Brewing	Brewing	Tea	Tea
Engineering	Tea	Tea		

\* Source: K. L. Datta, *Report on the Enquiry into the Rise of Prices in India* (Calcutta, 1915), *passim*; D. R. Gadgil, *The Industrial Evolution of India* (Calcutta, 1950), *passim*; *Indian Labour Yearbook*, 1949-50 (Delhi, 1951), *passim*.

a/ Mostly canals and roads.

b/ Mostly coal.

c/ Read: iron and steel plus coal.

d/ Kolar fields only.

e/ No information available for later years for an industrial average, generally railway wages thought of as remaining in the middle of the range.

f/ Mostly dyes.

true for India as a whole, then it seems particularly appropriate in a discussion of regional wage differentials. Wages have been traditionally low in agricultural areas and particularly so where the population is dense; they have been relatively high in the cities and particularly high in the cities with dense populations. Thus, if one is to draw contour lines around the most populated Indian cities, one also obtains a map showing wage levels on a regional basis, and a chart showing changes in the ranking of Indian cities by population, grosso modo, reflects changes in wage differentials.

Wages in Bombay and Calcutta have been high since the turn of the century. Wages in Delhi and Madras which were high in the 1890's were falling almost continuously until the years of depression. The situation in 1929 can be summarized as follows: "Wages were lowest in Madras, the Central Provinces and the United Provinces; the provinces to the East of this group, namely Bengal, Bihar and Orissa, had a higher level, and also those to the West, namely the Punjab and Bombay; the level was highest . . . in Bombay."<sup>23</sup> Since the thirties, there has been a very marked tendency for the wages of the regions of the interior to rise. At present, although in Bombay, Calcutta, and the areas immediately surrounding them, wages are still the highest, the difference between them and Bihar and Uttar Pradesh is rapidly decreasing.

#### The Position of the Indian Worker in Selected Industries

The textile industry: cotton and jute. Earnings of workers in the cotton textile industry have two principal components, the basic wage and the dear-ness allowance. Bonuses, which are granted conditionally and paid out of profits, are an important part of total yearly earnings for the workers of some firms in some areas. In some cases they amount to as much as one quarter the worker's total yearly earnings. Payments in kind, on the other hand, are of little importance in cotton textiles.

Looking at subsidiary payments in another way, it can be noted that basic wages sometimes amount to as little as 20 per cent of the workers' total earnings, rising to 55 per cent only in the case of the most skilled categories. Basic wage rates are set for each center by Industrial Courts, Tribunals, or other award. Rates presently prevailing throughout the industry were handed down during the 1947-1949 period and have remained unchanged. The resulting stickiness of basic wage rates is mitigated by the fact that dearness allowance payments of cotton textile workers are tied, in every case except in West Bengal (where there are relatively few cotton textile mills), to changes in the cost of living index.

Comparisons between the various centers of the cotton mill industry have been limited to five for which adequate comparable data are available: Bombay City, Ahmedabad, Sholapur, Madras and Kanpur. See Table IV. Note that although the minimum basic wage of both Bombay and Kanpur is higher than that of Ahmedabad, total minimum earnings (basic wage plus

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(23) ILO, Industrial Labour in India (Studies and Reports, Series A, No. 41, Geneva, 1938), p. 263.



Table IV

A SYNOPTIC VIEW OF WAGE PAYMENTS AND WAGE DIFFERENTIALS  
IN THE COTTON MILL INDUSTRY\*

Place	Minimum Monthly Basic Wage a/ Rs.	Dearness Allowance b/ Rs. a. p. c/ Rs. a. p.	Total Minimum Monthly Earnings Rs. a. p.	Per Cent Difference in Average Monthly Earnings between Highest and Low- est Paid Workers
Ahmedabad	28	75/12/3	103/12/3	6.3
Bombay	30	57/ 6/0	87/ 6/0	40.8
Kanpur	30	59/ 6/0	89/ 6/0	49.3
Sholapur	26	58/ 1/0	84/ 1/0	29.9
Madras	26	44/10/0	70/10/0	38.8

\* Source: Indian Labour Yearbook (1949-1950 (Delhi, 1951), pp. 188-89; *ibid.*, 1950-51, pp. 194-96.

a/ As established by a series of awards in 1947-1949.

b/ For September, 1951.

c/ A rupee is made up of 16 annas and each anna equals 12 pies; Rs. 100 equals \$ 21.16 (May 1, 1953).

dearness allowance) in the latter are significantly higher than in any other cotton mill center for which data are available. In Ahmedabad the lowest paid workers, at least for the period studied, received anywhere from Rs. 19 to 35 more than the lowest paid workers of other centers. (Minimum monthly earnings in Ahmedabad are actually higher than the highest average monthly earnings of the workers of Sholapur.) This is due to the differentials in dearness allowance and, once more, points to the importance of the dearness allowance as a part of total earnings.

Differences in earnings among workers within the same plant vary considerably from center to center. The range of average earnings, by occupational category, for the Ahmedabad mills, is extremely narrow, the difference between the lowest and the highest paid reported occupational category being less than Rs. 7 per month. Sholapur has the next narrowest range of earnings, the difference between the top and the bottom wage being approximately Rs. 29 per month. Kanpur has the widest range and there the difference is slightly over Rs. 70.

By ranking, according to earnings, the occupation categories reported in each center, inferences about the earnings of skilled vs. unskilled workers can be gained. One is first impressed by differences in the ranking of occupational groups within each center; closer examination shows certain occupational categories falling more or less constantly in the same part of the scale. The more skilled occupations, such as weavers, slubbing tenters, and ring spinners, are generally found near the top of the scale, while the wages of more unskilled workers such as reelers, mazdoors, and doffer boys generally fall to the bottom. Most textile workers are found either among the highest or the lowest paid categories.

Recent changes in earnings of textile workers as a group show a rising trend, as is the case for all workers throughout India. Average earnings in 1950 show a slight reversal in the trend. The reversal seems to be due to a decrease in employment rather than to any decrease in the cost of living allowance which, contrariwise, rose considerably. The trend is more marked in cotton than in jute; indeed, the latter is lagging slightly in the general wage movement of the period. See Table V.

The components of the earnings of the jute mill workers parallel those of the workers in cotton, although the dearness allowance makes up a considerably smaller part of total earnings. Workers' earnings in the jute mill industry are generally lower than those of cotton mill workers in spite of the fact that basic minima of jute mill workers are on par, or not significantly lower, than the basic minima of the important centers of the cotton textile industry. Thus, the differences in the general levels of earnings are due to the differences in the size of the dearness allowance.

Analysis of the earnings of jute mill workers is facilitated somewhat by the concentration of the industry -- 90 per cent of the jute workers are employed in the mills of Calcutta or its environs.<sup>24</sup> Despite its concentration, there was no standardization of wages in the jute mill industry until 1948, when the Industrial Tribunal of West Bengal set a basic minimum wage of Rs. 26 for the least skilled workers throughout the state, bringing greater order in the wage structure of the industry. Following the West Bengal award, an agreement was reached between the employers and employees of the Bihar jute mill industry that set the basic wages and dearness allowances of workers in that state 6.25 per cent below those in West Bengal.<sup>25</sup>

Average earnings of the jute mill workers of West Bengal are the highest among the four centers reviewed with the earnings of Kanpur but slightly lower. (Between 1943 and 1949 the opposite was true.) Likewise, the range between the highest paid and the lowest paid occupation is widest in West

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(24) Other centers of some significance are located in Kanpur, Madras and Bihar. Jute mills in these areas, however, are generally small; "there being only the equivalent of one average factory in five small factories in Madras and Bihar . . ." Buchanan, *op. cit.*, p. 244. See also K. Lalwani, *Industrial Efficiency in India* (Calcutta, 1949), p. 118.

(25) *The Indian Labour Yearbook, 1948-1949* (Delhi, 1950), pp. 160-161.

Table V

 INDICES OF AVERAGE YEARLY EARNINGS IN TEXTILES  
 BY PROVINCES 1939-1950\*

## A. COTTON (100 = All states weighted average 1939)

State	1939	1943	1944	1945	1946	1947	1948	1949	1950
Bombay	105.3	261.2	291.5	274.6	264.6	325.3	389.0	419.0	381.6
Madhya Pradesh	---	150.6	158.1	175.6	154.6	203.7	249.0	271.8	338.4
Madras	59.3	113.4	115.6	112.8	137.8	209.3	235.6	286.2	---
Uttar Pradesh	84.3	185.9	183.7	179.0	188.1	221.2	312.8	342.5	331.9
West Bengal	66.2	125.3	155.9	138.4	151.8	201.2	197.8	235.0	361.6
Delhi	101.2	166.2	257.5	245.0	232.8	265.3	327.8	346.5	355.3
All States	100.0	213.7	241.2	225.9	225.6	284.6	341.8	372.8	363.4

## B. JUTE (100 = All states weighted average 1939)

Bihar	76.6	112.5	124.6	162.3	94.8	88.3	161.9	266.2	378.2
Madras	55.8	110.3	116.8	139.3	147.6	208.6	173.5	214.2	---
Kanpur	64.5	192.6	182.2	170.5	188.7	239.8	345.4	409.0	358.0
West Bengal	101.7	154.5	158.4	170.1	186.5	217.7	279.2	347.6	349.3
All States	100.0	154.1	157.1	169.2	183.9	215.5	276.1	344.1	349.3

\* Source: Indian Labour Yearbook 1950-51 (Delhi, 1952), pp. 198-99.

Bengal followed closely by the range of earnings in Kanpur. The differences between the highest and the lowest paid workers in the jute industry are not as wide as those noted among the cotton textile workers, nor are the disparities among the centers as marked as in the cotton industry. The jute industry displays also a much greater consistency from center to center when payments by occupational category are analyzed. In three of the four centers studied, the weavers were reported as being paid the highest wage. The significance of the high position of the weaver in the ranking is more evident when it is recognized that weavers are the largest single body of workers in the industry, constituting more than 30 per cent of total employment.<sup>26</sup>

(26) Labour Investigation Committee, *op. cit.*, p. 193.

Plantations. Plantation labor as a whole is the lowest paid segment of the industrial work force of India. This fact assumes particular importance when it is recalled that with the exception of agricultural labor, plantation workers make up the largest single segment of the labor force. There are about 1,200,000 workers employed on Indian plantations; of these approximately 45 per cent are employed on plantations in Assam, 20 per cent in Bengal, and 30 per cent in South India.

The wages of plantation workers, like those of agricultural workers, are extremely low. The method of payment is complex, being constituted of different proportions of cash and payments in kind. Cash payment is based on the task accomplished;<sup>27</sup> the latter varies which complicates the attempt to ascertain the level of plantation wages either in money or in real terms. Payment in kind is an integral part of the remuneration of plantation labor; it varies between areas but in general consists of free housing or allowances toward the rent and the purchase of food. In many cases there is an outright distribution of food.


During the last thirty years cash earnings of the tea workers of Assam have been higher than those of the workers in Surma valley. See Table VI. Differentials between male and female workers are more marked than those in other segments of Indian industry although they show a marked narrowing since 1946-47. On the other hand, differentials in wages paid to women and children have expanded during the same period.

Although the earnings of individual workers in the plantation industries are very low when compared to the individual earnings of even the lowest paid class of labor in other industries, the situation of the plantation worker is not as bad as it might appear from this bare fact. In the plantation industry the family forms the labor unit and in making comparisons with other industrial workers, whose families may or may not be employed, total family earnings must be looked at. Viewed in this light the economic position of plantation labor seems less disadvantageous. Even though plantation workers are paid less than any other form of industrial labor, the average tea garden family has a yearly income amounting to "six to eight times the net of a similar average family of five, laboring in ordinary agriculture."<sup>28</sup>

Wages in the iron and steel industry. The components of the earnings of the workers in the Indian iron and steel industry are similar to those of other industries: the basic wage, dearness allowance, and bonus. Characteristic of the steel industry is a great variation in the manner in which the dearness allowance is computed and the importance of bonus payments which, with one exception, appear throughout the industry.

The dearness allowance paid to the steel workers of Bihar is computed in terms of the level of the worker's basic wage and his marital status; it is

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 In South India, however, workers are often paid on a daily basis. Indian Labour Yearbook, 1949-50, op. cit., p. 223.

(28) New York Times, September 7, 1952.

Table VI

INDEX OF AVERAGE MONTHLY CASH EARNINGS OF SETTLED PLANTATION  
LABOUR, PER WORKER: AND THE DIFFERENTIALS OBTAINING  
BETWEEN MALE & FEMALE AND FEMALE & CHILD EARNINGS\*

(100 = 1938-1939 Male Wage in Assam)

A. ASSAM					
Year	Men	Women	Children	% Differential-- Men-Women	% Differential-- Women & Children
1929-30	127.63	104.64	71.05	18.0	32.1
1938-39	100	81.27	57.49	18.7	29.2
1942-43	108.70	74.91	66.14	31.0	11.7
1943-44	121.21	98.29	74.52	18.9	24.1
1944-45	109.82	88.73	71.38	19.2	19.5
1945-46	123.44	99.86	80.22	19.0	19.6
1946-47	180.09	140.99	102.68	21.7	21.1
1947-48	224.68	186.96	134.77	16.7	27.9
1948-49	283.56	271.57	141.06	4.2	48.0

B. SURMA					
Year	Men	Women	Children	% Differential-- Men-Women	% Differential-- Women & Children
1929-30	134.38	105.37	67.71	21.5	35.7
1938-39	79.76	54.61	26.85	31.5	50.8
1942-43	91.35	68.50	44.40	25.0	35.1
1943-44	98.69	71.11	47.80	27.9	32.7
1944-45	104.12	71.11	51.66	31.6	27.3
1945-46	112.37	77.86	52.91	30.7	32.0
1946-47	178.91	125.99	79.10	29.5	37.2
1947-48	200.19	166.60	132.67	16.7	20.3
1948-49	288.27	256.38	146.56	11.0	42.8

\* Source: The Indian Labour Yearbook, 1949-50 (Delhi, 1951), p. 226.

made up of three components: dearness allowance proper which varies with the level of the worker's basic wage, an "emergency bonus" which is set at 10 per cent of the basic wage, and a "food concession" which varies according to the marital status of the worker. A similar system is followed in West Bengal, although in this state the relationship between the basic wage and the dearness allowance is different with the minima being slightly higher and the marital status of the worker not considered.

Bonus payments vary from unit to unit, but their importance is considerable in all. The Indian Iron and Steel Co., e.g., pays a bonus of two days' wages for every one per cent of the declared dividend, amounting in 1949-50 to twenty days'



wages, while the Tata Iron and Steel Company has a profit sharing scheme under which 27.5 per cent of the company's annual profits are divided among the employees in proportion to basic salaries and wages.

The wage structure of the steel industry, as represented by five major firms for which data are available, shows a great width in the range between the highest and the lowest occupational category, which, although marked in terms of the average earnings, is even more marked in terms of the minimum monthly basic wages. The width of the range is highlighted by the interplant comparisons resulting from a study of Table VII. (Workers in the Tata Iron and Steel Company's mills receive the highest average earnings of any of the units studied and the company displays also the widest range. In five occupational categories Tata workers draw both the highest basic wages and highest average earnings. Contrariwise, the basic minimum earnings of the least skilled workers in the Tata plants are lower than wages paid in the comparable categories in other units.)

Regulation of basic minimum wages for Indian steel workers shows the same diversity that has been seen in other industries. On the whole, looking both at the minimum basic wages for the least skilled workers as established by regulation and at that actually paid the same workers, the minima paid in the steel industry are considerably below those paid in cotton textile and in other industries.

Comparison of the average wage level in the iron and steel industry with that in other industries, like all such comparisons, is approximate at best. A limited comparison shows clearly the level of steel wages considerably above that of cotton;<sup>29</sup> indeed, the wage level of steel is the highest of all surveyed industries. It is higher than that of cotton in spite of the fact that the least skilled workers in steel are paid less than their counterparts in the cotton textile industry.

As a whole the administration of wages in the steel industry is much more detailed and standardized than in other industries: wage ranges and intervals within the ranges are standardized and occupational categories are more precisely defined, although not even the Tata Steel Works, whose wage administration is most refined, has introduced job description as a basis of evaluation of wage differentials or in its establishment of occupational categories.

Port laborers and locally determined wages. Surveying the wages and earnings of the port workers of Bombay, Madras, and Calcutta, one notices immediately the impact of local conditions as a major determinant of the wages and earnings of port workers. Port laborers' wages (port laborers here include stevedores as well as other groups operating within the facilities of the port such as would be found in shipyards and similar enterprises) are

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(29) Added support is given this contention by the fact that while available data on cotton wages include the weaver who is actually the highest paid worker in the industry, the data on steel wages used here do not include numerous categories of higher paid workers listed in data obtained directly from the steel companies, particularly in Tata Company.

Table VII

**BASIC WAGES, AVERAGE EARNINGS AND  
DIFFERENTIALS IN THE IRON AND STEEL INDUSTRY\* a/**

Occupational Classification	Tin-Plate Co. of India		Indian Steel Rolling Mills		Indian Iron and Steel Co. (Hirapur Works)		Tata Iron and Steel Co. Ltd.		Indian Steel and Wire Products, Ltd.	
	Average basic wage Rs. a. p.	Average earnings Rs. a. p.	Average basic wage Rs. a. p.	Average earnings Rs. a. p.	Average basic wage Rs. a. p.	Average earnings Rs. a. p.	Average basic wage Rs. a. p.	Average earnings Rs. a. p.	Average basic wage Rs. a. p.	Average earnings Rs. a. p.
High	75/12/9	171/5/0	48/7/0	94/8/0	56/14/0	109/3/6	89/3/0	184/8/0	66/10/0	99/3/6
Low	20/ 0/5	59/4/0	24/9/0	59/2/0	18/10/9	51/1/3	---	49/7/0	21/ 2/0	52/0/0
Differential	73.6%	65.2%	49.3%	37.4%	58%	52.2%	---	73.2%	68.3%	47.6%

\* Source: Indian Labour Yearbook, 1949-1950 (Delhi, 1951), p. 198.

a/ For September 1950.

regulated by the government through the Central Pay Commission for Railway Employees. Consequently wage rates have been standardized, particularly since February 1949 when dearness allowance payments were made uniform. Dearness allowance payments amount to Rs. 35 per month for workers whose basic wage is less than Rs. 50 per month. The basic minimum wage is set at Rs. 30 per month except in Calcutta where it is Rs. 26. Comparing the three centers by occupational categories difference among centers can be noted in spite of the equalizing effect of the Central Pay Commission's efforts.

Minimum earnings of port laborers in Bombay are considerably lower than those of its cotton mill and tramway workers, and less than those in general engineering establishments and of municipal workers. They are generally higher than the minimum earnings of workers employed in tanneries and leather goods factories, chemical plants, and pottery manufacturing establishments, while they are about equal to the minimum earnings of woolen and silk mill workers.

In Madras the earnings of the lowest paid port laborers are approximately equal to the minimum earnings of cotton mill workers and tramway laborers. They are higher than the minimum earnings of workers in general engineering firms, motor transport workshops and tanneries and leather goods factories. In general, the earnings of Madras port workers are approximately equal to those of both the cotton mill and tramway workers for which data are available.

Although the earnings of port laborers in Calcutta are generally lower than those of port laborers in Bombay and Madras, the minimum earnings of the lowest paid category of Calcutta port laborers compare very favorably with the minimum earnings of the lowest paid class of workers in other industries within the area. The lowest paid class of workers in cotton mills, jute mills, and general engineering establishments have minimum monthly earnings somewhat lower than those received by the lowest paid class of port labor. Tramway workers have a slightly higher minimum than port laborers, while the minimum wages of the chemical workers are considerably higher.

Ranking the occupational categories of port workers in the different ports according to the size of their earnings shows much less variation in payment between occupational categories than is found in other industries. Although in other industries categories such as fitters, turners, and carpenters are set aside as skilled occupations by the high rank of their wages, nowhere are these categories lumped under a single wage rate as they are among port workers. The differentials between the categories may often be small but they do exist. The lack of such differentials between these categories as well as the extreme narrowness in the range of average earnings of port laborers is a striking characteristic of port labor.

#### Summary

The lack of available data, the incompleteness of statistical coverage and the great diversity in mechanization, job conditions and job contents make it extremely difficult to formulate generalizations on the wage position of the Indian worker for the country as a whole. The industries reviewed in the above survey are meant to give the reader only an impressionistic view. The

survey has covered the textile industry because of its importance in the economy, the steel industry because of its high wages and the plantation because of their low wages; port workers have been added only to extend the general overview that the survey provides.

The following observations can be made in spite of the paucity of data: India is a country in which workers are paid very low wages. Most Indian workers earn between 70 and 100 Rs. a month. In dollars their earnings average between 14 and 21 dollars. The more skilled workers earn more; in some cases, particularly in the newer industries and in the larger cities, they earn considerably more. In general, skilled workers earn at least twice as much as their less fortunate co-workers. In India, as is the case the world over, women earn less than men. This is due almost principally to the fact that most women workers in industry, and their number is relatively small, hold unskilled rather than skilled jobs.

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## THE POLITICS OF LANDHOLDING IN BUSOGA\*

### I

Outside the modern Western world the economic aspect of land -- its role in production and exchange -- commonly is intimately bound up with, and influenced by, its place in the political and religious system of the people who live on it. Rights in land are often so dispersed that no single individual holds more than a transitory usufructory right as, for example, where land is held by corporate kinship groups. Economic rights in the soil and its produce may, furthermore, be inseparable from political authority over its inhabitants, a relationship described for feudal Europe by the expression "no land without a lord." Ritual value placed upon a given piece of land by a particular individual or group may further tie certain people to particular plots. In such circumstances, land is not a free commodity: there can be no market in land because no single individual or group is ritually or legally free to deal in it.

When societies in which such arrangements prevail become involved with capitalist economic organization, a dilemma often arises: individuals acquire wants for goods and services which cannot be satisfied within the customary framework. Acquisition of the fruits of capitalism requires some articulation with that system's mode of production and exchange; and when the economy in question is agricultural, such articulation frequently involves some alteration in the system of landholding. A pressure arises toward the freeing of land for exchange transactions. But since rights in land are bound up with political, kinship and ritual status, land cannot be freed without radical alteration in the entire structure of society. Often the very individuals who most desire to cast off traditional restraints upon the exchange of land continue to value other social patterns which are incompatible with such freedom.

Today, the Basoga,<sup>1</sup> a Bantu speaking people living on the northern shore of Lake Victoria in the Eastern Province of the Uganda Protectorate, East

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\* The data upon which this paper is based were gathered between December, 1950, and August, 1952, during which period the writer was associated as a Research Fellow with the East African Institute of Social Research. Additional funds were provided by the U. S. Educational Commission in the United Kingdom (the Fulbright Program). The substance of the present paper was presented at a conference of administrators and social scientists held by the East African Institute of Social Research in June, 1952, at its headquarters in Kampala, Uganda.

(1) In the Bantu languages of the Lake Victoria region, nouns denoting places are formed with the prefix "Bu-," while those denoting peoples are formed with the prefix "Ba-." Thus the country is referred to as "Busoga" and the people as "Basoga." Where an adjective is required, the root "Soga" alone will be used, since to follow Bantu rules of prefix concordance would merely produce confusion.



Africa, find themselves in such a predicament. Having been in contact with Europe since 1862 and under British administration since 1894, they have developed a standard of living which includes many consumption goods obtainable only through external trade. This has been possible because the Basoga had something to sell. The introduction of cotton before the First World War and its widespread adoption as a cash crop made it possible for them to achieve an initial articulation with the external economic world with a minimum of internal readjustment. Having been sedentary subsistence cultivators prior to European contact and being possessed of fertile and well-watered land, they were able simply to "add on" the cultivation of cotton and to acquire a source of cash without putting serious strain on the subsistence economy. Such agriculture has, in fact, been profitable enough to prevent peasants being drawn away from the villages into wage labor.<sup>2</sup>

Today, however, the rise in standard of living which was made possible by these means appears to have reached its limit, or very nearly so. Little further increase in the production of cotton and other cash crops can be foreseen through hoe cultivation on small peasant plots. Two major alternatives for further increasing living standards present themselves: either to increase agricultural productivity by applying capital and more efficient technique to larger land units; or by the participation by Basoga in non-agricultural enterprise, hitherto largely dominated by immigrant Indians, Europeans and Arabs.<sup>3</sup> Both these alternatives, however, are largely blocked by the Soga system of landholding. Under present arrangements, an individual wishing to acquire a larger land area is unable to do so because land may not be bought or sold. Likewise, one who wishes to acquire capital for either agricultural or non-agricultural enterprise is unable to utilize his rights in land for this purpose, since land may not be pledged against a loan. On the other hand, the landholding system is so intimately involved with the entire structure of Soga society at the village level that its alteration would necessarily involve far-reaching changes in the social system.

This dilemma is felt and understood with varying degrees of clarity by many Basoga, particularly, of course, by those who feel themselves restrained by the prevailing system. It seems quite likely that, in the reasonably near future, movements aimed at changing the system will emerge. It seems

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- (2) Opportunities for wage labor have been confined to personal service with Europeans or Indians, a few businesses and minor industries, mostly located in the town of Jinja, and a single cane sugar plantation operated by an Indian firm. Since the policies of the Uganda Government have not encouraged the alienation of land to non-natives, the demand for labor has been small. Such demand as has existed, however, has been met largely by immigrants of other tribes.
  - (3) Most of the trade in imported goods is carried out in the small trading centers which are scattered about the District at intervals of ten to fifteen miles. The shops located in such centers are nearly all operated by Indians and Arabs, though a small number of African-owned shops are also to be found. European businesses are confined to the town of Jinja, as is also the bulk of the European population.

worthwhile, therefore, to analyze the situation in some detail, on the supposition that such an analysis will be subjected to the test of future events, and may thus contribute to knowledge about processes of social and economic change.

## II

The fundamental local unit in Soga society is the village (*omutala*) which, however, is not a cluster of dwellings but rather a stretch of land over which homesteads are dispersed in a more or less uniform distribution. Each homestead is located among its own cultivated and fallow plots and each has attached to it a garden of plantains which provides the homestead's staple food as well as the basic ingredient of beer, which in East Africa is the inevitable accompaniment of sociability. Nearly every homestead keeps a few chickens, sheep and goats and, in areas not infested with tsetse fly, a few cattle as well.<sup>4</sup> Usually, the village area is co-extensive with an area of high land, one to three miles across, bounded by low-lying swampy ground. Its population may vary from fewer than two hundred to more than one thousand persons.

All cultivable land is fully appropriated in the sense that it is included in someone's holding and integrated into a cycle of crop rotation, although no more than half the total cultivable land of a village may be under crops at a given time. In 1952, the density of population for Busoga District as a whole was given as 140 to the square mile.<sup>5</sup> This estimate, however, is based upon total land area and includes forests, rocky hilltops, areas along the borders of swamps rendered unsuitable for cultivation by periodic flooding, and areas taken up with roads and devoted to other non-agricultural uses. In addition, since it represents the District as a whole, it fails to take account of intra-District variations. Two agricultural surveys carried out in 1938 by the Uganda Department of Agriculture give a truer picture of population density and land use.<sup>6</sup> Population densities per square mile of cultivable land in the two villages surveyed were 349 and 373 respectively.<sup>7</sup> The following table provides

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- (4) In the northern part of the District, a different pattern prevails. Since rainfall is insufficient to support plantains, the staple food crop there is sweet potatoes. Cattle are also raised in greater numbers and the land is less densely settled. The material presented in this paper relates primarily to the southern two-thirds of the District, where the great bulk of the population is concentrated.
  - (5) Busoga District Plan, District Commissioner's Office (Jinja, 1952).
  - (6) J. D. Tothill, et. al., A Report on Nineteen Surveys Done in Small Agricultural Areas in Uganda with a View to Ascertaining the Position with Regard to Soil Deterioration (Uganda Protectorate, Department of Agriculture, Government Printer, Entebbe, 1938).
  - (7) Since the population of the District appears to have risen from 378,394 in 1931 to 505,998 in 1948, these densities should perhaps be revised slightly upwards in order to represent accurately the situation today. Figures from the 1931 census are taken from H. B. Thomas and Robert Scott, Uganda (London, 1935). Those for 1948 are taken from African

some indication of the size and utilization of land holdings in these two villages. The data may be considered representative of that part of the District in which most of the Basoga live.

	<u>Village A</u>	<u>Village B</u>
Average population per homestead:	4.8	4.5
Average cultivable land per homestead:	8.7 acres	7.5 acres
Average area under cultivation per homestead:	5.5 acres	5.5 acres
Average area in cotton per homestead:	2.05 acres	1.91 acres
Average area in plantains per homestead:	2.27 acres	1.73 acres

In 1950, peasant holdings of this kind produced the following quantities of marketed produce per taxpayer (that is, per able-bodied male above the age of sixteen) for the District as a whole:<sup>8</sup>

Cotton:	Sh. 317/62	Cattle:	Sh. /92
Groundnuts:	" 44/90	Goats:	" /26
Maize:	" 9/12	Hides:	" 3/65
Coffee:	" /11	Skins:	" 9/79
Simsim (oilseed):	" / 8	<u>Total:</u>	Sh. 386/45

Since the staple foodstuffs are produced by each homestead for its own use, this money income is, for the most part, available for expenditure on such imported goods and services as bicycles, sugar, tea, clothing, utensils and tools and school fees. Thus, the Soga village is economically a community of peasant small-holders, producing foodstuffs for local consumption and earning cash from exchanges in an external market.

### III

The social system of the village, in its kinship aspects, is of a type common throughout Bantu Africa. All Basoga are divided among a number of exogamous patrilineages. Unlike the situation in many Bantu societies, these clans are not localized, but are widely dispersed over the tribal territory. Within the patrilineage, members are further divided among a number of named patrilineages composed of persons who are able to trace descent to a common ancestor in the patrilineal line. Again, these patrilineages are not necessarily localized groupings, though sometimes this may be the case. The effective

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Population of Uganda Protectorate (East African Statistical Department, Entebbe, 1950). Much of the population increase, however, has been absorbed by areas in the District formerly depopulated by sleeping sickness.

(8) Busoga District Plan, op. cit. Values are expressed in East African shillings. At present exchange rates, seven shillings are the equivalent of one U. S. dollar.

corporate kinship group, that which acts as a body on important occasions, is the group of patrilineal kinsmen living in the same or neighboring villages. This group may be a patrilineage, a segment of a patrilineage, or a group of related patrilineages.

As this would suggest, the village itself is not a corporate kinship group. Although within it there may be an intricate network of consanguineal and affinal linkages, the patrilineal group, which is the corporate kinship group in Soga society, never constitutes a village or even the dominant core of a village. Village populations always include a number of such groups. The same applies to the sub-villages (*ebisoko*) into which villages are divided. Both are primarily territorial units; each has a chief whose relations with his people are defined in territorial, not kinship, terms. With respect to his people, the village or sub-village chief is primarily a leader in village or sub-village affairs, a holder of certain rights in all the land of the village, and a link with external authority.

The two major principles of organization in the village are thus patrilineal kinship and territorial chieftainship. The manner in which these two principles relate to one another emerges most clearly in the customary law of landholding.<sup>9</sup> The total body of rights in any piece of land are distributed among several parties, individuals and corporate groups. A peasant who wishes to take up new land applies to the sub-village chief. If there is vacant land within the sub-village, the chief allots to him a holding in exchange for a fee which may vary from as little as Sh. 10/- to as much as Sh. 500/-. The village chief also normally acts as chief in one of his own sub-villages and in addition receives a portion of the fees from the other sub-villages. The payment of this initial fee entitles the peasant and his heirs to perpetual, rent-free use rights in the land so long as they remain in effective occupation. These rights, however, extend only to use and legitimate inheritance, not to sale or pledge. If the peasant wishes to move elsewhere, if he dies without legitimate heirs, or if he fails to remain in effective occupation (usually defined as failure to reside upon or cultivate the land for more than one season without the chief's permission), the chief may reclaim the land for re-allotment to a new tenant.

These are the respective rights of chief and tenant. A third set of rights, those of the tenant's local patrilineal group, come into play when the tenant dies. Although wills are frequently made, either verbally before witnesses or in writing, they have no mandatory character. The gathering of patrilineal kinsmen at the funeral ceremonies has complete discretion in the choice of an heir among the dead man's real and classificatory sons. In this way, the patrilineal group is able to protect what is felt to be a strong corporate interest in the land held by its members. In the traditional Soga religion, patrilineal ancestors were of the greatest importance. They were believed to have great influence upon the earthly lives of their descendants and their graves were the center of a cult in which propitiation rites played

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(9) The data on customary law are derived from a study of cases heard in the Busoga African Local Government Courts.

a prominent part. Today, formal adherence to Christianity or Islam has largely superseded the ceremonial aspects of the ancestor cult, but the feeling of veneration for and interest in the soil in which ancestors are buried remains and finds expression in the customary law reserving a segment of rights in land to the corporate body of their descendants.

Finally, a similar corporate interest is recognized in the rights to village and sub-village chieftainship. Just as in the case of a peasant's holding, the chief's office is hereditary in the patrilineal line; but again the ultimate choice of heir lies with the chief's local patrilineal group and he may not alienate his office during his lifetime without the group's consent.

Thus, the total body of rights in land is divided among two individuals and two corporate kinship groups. It is apparent that such a distribution leaves little scope for individuals to engage in free land transactions. Neither chief nor peasant is free to treat his holding as a free commodity; neither can systematically accumulate a large continuous tract for agricultural purposes nor alienate his right for money to obtain needed capital.

#### IV

The situation is, however, even more complex, because the chief, whose position in the landholding system is one of the sources of its rigidity, is more than simply a holder of rights in land. Traditionally, the chief of the village or sub-village represented the lowest level in the organization of the kingdom-state. Prior to the establishment of British administration, Busoga was divided into a number of such units, similar in organization to other kingdom-states (such as Buganda, Bunyoro and others) in the Lake Victoria area. Each kingdom was divided into a number of chieftaincies administered by the king's clients or by princes of the royal clan. At the apex of the hierarchy of authority was the king, whose office was hereditary in a lineage of the royal clan. The chiefs of the villages and sub-villages were at the bottom of the hierarchy of authority and were themselves junior members of the royal clan, or clients of the king, or chiefs. This hierarchy constituted a pyramid of judicial, military and administrative authority and supported itself through the collection of tribute in produce which was passed upward to the king, the officials at each level receiving a share.

Under British administration, this system has been greatly altered. The kings, princes and chiefs have been replaced by a bureaucratic hierarchy of civil servants and the formerly autonomous kingdom areas have been unified into a single political unit. The new civil servant chiefs, together with a parallel series of elected councils, constitute the Busoga African Local Government, which has powers of subsidiary legislation, collects its own taxes, and administers a range of social services which include public works, agricultural and veterinary extension, police, and health services. The civil servant chiefs act as judges in the courts which administer Soga customary law.

At various stages in this process of transformation, the British administration has attempted, without success, to absorb the village and sub-village chiefs into the new system by transforming them into salaried civil servants, as was done in the case of the kings and higher chiefs. The higher chiefs



accepted the new conditions, probably because the salaries offered them were attractive and because their former positions in the traditional system were less locally rooted. The conditions of service in a bureaucratic organization, which included the replacement of tribute by fixed salaries and free transfer from one area to another, were easier for them to accept. The village and sub-village chiefs, however, refused to be bureaucratized. They retained their hereditary positions and remained outside the African Local Government organization. But since tribute was abolished throughout Busoga, they were cut off from their former source of income.

These changes in the wider political organization are important to the present-day role of the village and sub-village chiefs because the recent and rapid process of change has left them in a situation which is a source of conflict in village life, particularly in the sphere of landholding. The chiefs retain their rights in land as described earlier and are recognized by their people as the legitimate holders of authority in the village. The chief's homestead is the scene of daily gatherings for the discussion of village affairs. These gatherings which take place in the atmosphere of hospitality surrounding the chief's homestead are the political situation *par excellence* in Busoga. If a disaster or act of violence occurs in the village, the chief is expected to hurry to the scene and to take charge of the situation. He is the sociological center of the village, both in its internal life and in its relations with the outside world.

The civil servant chiefs, who are frequently transferred from one area to another, and consequently are unable to acquire intimate knowledge of their jurisdictions, recognize and respect the village chiefs' positions. Although the village and sub-village chiefs are not formally part of the African Local Government, in practice the civil servant chiefs delegate many duties to them which require direct contact with the peasants. The collection of taxes, apprehension of minor criminals, and propagandizing in favor of improved agricultural practice are commonly handed over to them. The lower chiefs in effect are also part of the judicial system. The civil servant chiefs, recognizing that many disputes may be settled without formal trial in the African Local Government Courts, refuse to accept cases until they have first been taken to the lower chiefs for arbitration. Frequently, if a civil servant chief is for any reason absent from duty, a village chief acts for him and is paid for the period during which he so serves. In the day-to-day governing of Busoga, the village and sub-village chiefs are in fact treated and behave as if they were an integral part of the African Local Government.

The lower chiefs accept this arrangement and carry out the duties delegated to them because doing so allows them to continue as the link between their people and higher authority; it gives them a place in the wider political organization. But this is at best a distasteful compromise. In order to retain their position of locally-rooted authority, they must serve without pay in a system of which they do not entirely approve. Forbidden to collect personal tribute, which was a symbol of their authority and a source of support for the hospitality which they are expected to practice, and unwilling to accept the conditions of bureaucratic service, which would provide salaries, they receive only the infrequent allotment fees from new tenants.

In reaction to what they feel is an unjust deprivation, many of the chiefs turn to illegal manipulations in land. It will be recalled that in the customary land law outlined earlier, the chief may reclaim and re-allot land when the tenant fails to remain in effective occupation. In order to increase the turnover in tenants and thus to maximize his income from allotment fees, a chief may attempt to reclaim land which, in fact, is still lawfully held by the tenant. He often succeeds in this because, in the African Local Government Courts, in which such cases are heard, his word as a witness carries great weight. It is widely recognized among the peasants, however, that such things frequently occur. Other such practices include attempts by chiefs to squeeze in extra tenants by cutting away bits from existing tenants' holdings and the short-term renting of land to immigrants from other tribes unfamiliar with Soga custom. The latter practice is not illegal in the sense of being actionable in the customary law, but it is outside Soga custom and is considered by the peasants to be highly anti-social. They feel that land should be allotted to native Basoga in customary tenure.

Such practices give rise to a great deal of litigation and have the effect of reducing security of tenure and discouraging careful husbanding of the fertility of the soil through crop rotation and fallowing. The following figures, representing litigation in the African Local Government Courts during 1950, provide some indication of the magnitude of this effect.<sup>10</sup>

	Sub-County Courts	County Courts	District Courts
Total Cases	9737	1019	249
Land Cases	635	307	139
Land Cases as % of Total Cases	6.5	30.1	56.7

When it is remembered that these frequencies occur among a total population of only one-half million people, it becomes clear that the rate of litigation over land is very high. Land cases are also the most difficult to settle. Cases are initiated at the Sub-County level and then go, on appeal, to the County and District Courts. By the time the District level is reached, land cases constitute more than half the total volume of litigation.

Thus, the village and sub-village chiefs, caught in a conflict situation, engage in practices which undermine their own prestige in the eyes of their people, discourage sound agricultural practice, and become a source of breakdown in the customary law and morality which it is their traditional duty to uphold.

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(10) Figures kindly made available to the writer by the District Commissioner, Busoga.

## V

The main elements in the complex interrelation between landholding and the social system in Busoga may now be briefly reviewed:

(1) Rights in land are so distributed that no individual is in a position to treat his holding as a free commodity.

(2) One element in the "unfreeness" of land, the rights held by corporate kinship groups, is supported by religious sentiments deriving from the traditional veneration of ancestors.

(3) A second source of rigidity, the rights of village and sub-village chiefs, is bound up with the important role which these chiefs play in the political system.

(4) The conflict situation in which political changes have placed the village and sub-village chiefs has resulted in their entering into activities which render land tenure uncertain and thus militate against the most efficient utilization of land within the existing framework.

This situation is recognized by the British administrators and by many Basoga to constitute a "problem" for which some "solution" is required. Today, many Basoga express a desire to engage in business, or in the extensive cultivation of cash crops. It is the policy of the Uganda Government to encourage such aspirations, and a number of steps have been taken in this direction. Recently, a Credit and Savings Bank has been established to grant loans for business and agricultural enterprises. In some parts of the Protectorate (for example, in Buganda) the landholding system is such that land may be pledged as security against loans.<sup>11</sup> The Basoga, however, have been unable to take advantage of the services of the Bank because their land may not be used for this purpose.

But at least as important as the availability of capital in the development of an efficient agriculture is the knowledge of efficient methods of cultivation and the motivation to apply them. Work carried out on the experimental farms operated by the Department of Agriculture indicates that substantially greater yields of cotton and other crops may be obtained when improved methods of

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- (11) In Buganda, which adjoins Busoga on the east, and with which Busoga shares a very similar cultural tradition, natural environment, and present-day pattern of economic development, a system similar to European freehold has been in operation for the past fifty years. Superficial observation suggests that the difference in landholding practices is at least partly responsible for the fact that many more Africans are today engaged in larger scale agriculture and non-agricultural enterprise in Buganda than in Busoga. In Buganda, freehold land appears to have stimulated economic development in two ways: (1) The pledging and sale of land has provided capital for new enterprises. (2) Persons who have accumulated wealth have invested in land either for rent or for the larger scale growing of cash crops with hired labor.

of cultivation are employed. This, however, requires a belief in the desirability of agriculture as an occupation. In a country such as Uganda, where formal education has great scarcity value, agriculture as an occupation tends to be followed by persons without sufficient training or motivation to gain entry into other work. Recognizing this, the Education Department has considered the introduction of a program of agricultural education in the primary and secondary schools. Again, however, the Soga landholding system was felt to be a block. One Education Officer told the writer that he felt he could not recommend such a program for Busoga because, with the prevailing insecurity of tenure and the difficulty of acquiring holdings larger than the usual small plots, he could not imagine persons with substantial education earning enough in agriculture to hold them on the land in the face of opportunity for employment as clerks or other functionaries in the Protectorate or African Local Governments.

The administration, however, has made no attempt to intervene directly to change the landholding system. In any case, it seems likely that any such attempt would fail. Rather any attempt by the administration to alter the customary land law, involving, as it almost certainly would, the elimination of the chiefs' rights to reclaim and re-allot land, would meet widespread opposition. Undoubtedly the chiefs themselves would be further embittered and would cease to fulfill the important political functions which they now carry out. Such a move would probably also meet opposition from the peasants. Although they dislike many of the chiefs' activities, their distrust of the distant and powerful European Government is far greater. In a struggle between the administration and the chiefs, the sympathies of the majority of the peasants would undoubtedly lie with the chiefs. A frontal attack by the administration upon the corporate rights of the patrilineal kinship groups would meet even greater resistance, since these rights are the expression of non-rational sentiments of a very profound kind.

It appears that this is a type of conflict situation arising out of social and economic change which can only be resolved by the people involved in it. In the Busoga District Council, the Basoga have the institutional means for resolving the conflict. The Council is a representative body, the majority of whose members are elected, with power to legislate in matters governed by Soga customary law. If the present analysis is correct, there will ultimately emerge a movement directed at altering the customary law so as to free land from the restraints placed upon it by the existing distribution of rights. How and when such a movement will develop is, of course, impossible to predict. Perhaps the village and sub-village chiefs will so discredit themselves that popular opinion will turn against them. Another possibility is suggested by the tendency of some chiefs to react to the conflict situation in which they find themselves, not aggressively by illegal dealings in land, but by withdrawing into passive inactivity. Such reactions are widespread enough at present to stimulate considerable comment. Such persons are spoken of as "lazy chiefs who do not carry out their work of keeping the land." At least in some villages where chiefs have reacted in this way, ad hoc freehold practices have tended to grow up. Peasants buy and sell land and the chiefs do not appear sufficiently motivated to take legal action.

These tendencies are, at present, only embryonic. By repeated visits to Busoga, the writer hopes to observe their further development and thus, perhaps, to contribute to knowledge of the processes by which such conflicts emerge, become explicit, and result in structural change in the economic and social order.

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SOME NOTES ON VILLAGE INDUSTRIALIZATION  
IN SOUTH AND EAST ASIA

One of the aspects of the industrialization of Western production is the modern species of culture contact which diffuses the industrial way to the remotest corners of the world. This spread of the industrial West brings social and technological complexity into remote cultural and social environments. Such contacts may be viewed as contemporary experiments in human living which offer an opportunity to assess the range of institutional compatibility with industrial production, on the one hand, and to discover the gamut of possibilities of the industrial organization of society, on the other.

To this end, the village scale of analysis offers several theoretical and practical advantages. The unit is small enough so that the pattern of impact can be described in detail. The village can be isolated as a unit, can be held in the hand, so to speak, and the march of history through it can be watched; thus the use of historical controls is enhanced, allowing for inference as to the processes of industrialization as well as to its effects. Finally, because the village is, in some sense, society in microcosm, it affords an intelligible unit of study for those interested in culture wholes.

In deciding what are to be considered cases of industrialized villages, there is the problem of defining industrialization and of specifying which villages are cases in point. Industrialization, as a form of production, for the purposes of this paper, is considered to be men aggregated at power-driven machines, working for monetary return with the products of the manufacturing process entering into a market based on a network of exchange relations. This excludes villages which have felt the impact of industrialization mediated through a national or regional web of economic relations, and fixes upon those which have or had industrial enterprise located within the community itself, drawing upon the community's labor resources directly.

In one sense, Shimane Prefecture, in Japan, is a polar case of village industrialization. In Shimane there existed until recently an iron smelter.<sup>1</sup> This smelter, possessed of enough modern technology to work four to five thousand pounds of iron at a single smelting, was organized along traditional lines, embedded in a community which, by most sociological scales, is ranked "folk" or primitive. The more important characteristics of the factory organization were (1) the persistence of a traditional method of iron smelting, the origin of which is associated with a myth; (2) the existence of a special dependency relationship between workmen and owners; (3) an hereditary occupational system; (4) a strong *esprit de corps* among workmen based on faith in a guardian deity. The community itself was socially closed and culturally isolated from the neighboring farm villages. Within the village, relationships were kin-like and village endogamy was approached. Industrially, the employer and worker were lined by social relationships and social usages which were the

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(1) The discussion of the iron smelter is based on Kunio Odaka's study of an iron worker's community in "An Iron Workers' Community in Japan: A Study in the Sociology of Industrial Groups," *Am. Soc. Rev.*, XV (1950), pp. 186-95.

very antithesis of analogous economic relationships in communities like Middletown or Yankee City. The owner-worker relation was called oyabun-kobun (Literally: parent-child). An oyakata was not simply a manager, still less an entrepreneur or capitalist in the current sense of these words. He was tied to his workers by personal and kinlike ties, and most oyakata-worker relationships, as kin bonds should be, were passed on by genealogical descent. A smeltry workman, especially if he were the eldest son, inherited both his father's occupation and position, serving the same oyakata as had his father before him.

This "folk-like" factory reflected the community. Workers lived around their oyakata's house constituting a community known as the sannai (literally: within the smelter). The sannai group worshipped a guardian deity, a goddess popularly called Kanayagosan. The goddess was believed to be responsive to prayer.

Shimane indicates that a ritual, endogamous, community organization can encompass industrialization, and even bend factory production into a ritual system. In Japan, a country where Western production was introduced suddenly into a feudal society, this may have been only the extreme instance of a peculiar mode of life which has developed relatively recently. This system contains, along with impersonal work relations, institutions like the "beautiful custom" of workers' loyalty to masters in Sakai,<sup>2</sup> and the persistence of other ritual systems for recruiting personnel for factory labor.

China's pattern of industrialization, differing widely from Japan's both in historical background and in outcome, offers some important material on village industrialization.<sup>3</sup> Despite the absence of a report devoted exclusively to an industrialized village, material from Fei, Shih, T'ien, Levy, and Ho makes it possible to piece together something of the nature of village industrialization.<sup>4</sup>

In one village where next to agriculture the main source of income was the production of silk thread and some silk cloth, a factory system of manufacturing silk was introduced.<sup>5</sup> This was a deliberate attempt by experts to

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- (2) Teiziero Uyeda, The Small Industries of Japan: Their Growth and Development (Shanghai, 1939).
  - (3) John Orchard, "Contrasts in the Progress of Industrialization in China and Japan," Political Science Quarterly, LII (1937), 18-50.
  - (4) Hsiao-Tung Fei, Peasant Life in China (New York, 1946), pp. 178-95; Kuo-Heng Shih, China Enters the Machine Age: A Study of Labor in Chinese War Industry (Cambridge, 1944); Ju-Kang T'ien, "Female Labor in a Cotton Mill," supplementary chapter in Kuo-Heng Shih, op. cit., pp. 178-195; Marion J. Levy, Jr., The Family Revolution in Modern China (Cambridge, 1949); Franklin L. Ho and H. D. Fong, Extent and Effects of Industrialization in China (New York, 1929).
  - (5) Fei, op. cit., pp. 178-95.

effect economic change. The presence of a sericulture school near the village combined with the acuteness of the world depression prompted the plan to industrialize the village. The change was made under the aegis of reformers from the nearby sericulture school. They were not motivated by "economic" considerations; rather their thinking was pervaded by the socialist ideas which form part of the ideology of much of the present literate class in China.

The factory which ultimately came into being was not part of the conscious design of the sericulture reformers; it was an inadvertant consequence dictated by technical rather than social imperatives. It was owned by a cooperative society, consisting of the people who contributed the silkworm eggs and raw silk for industrial processing. In name the 429 members, including practically all the households in the village, were owners. But they did not really control the enterprise. The factory was run by the sericulture school. There was no attempt by members to exercise their right of vote to control the factory -- the ballot system was a new and unfamiliar device. The factory failed. It made a profit, but because the directors used part of the profit for reinvestment rather than distribution, members sold their raw silk on the open market rather than turning it in for lesser return to their factory. The curtailment of supply due to limitations on the members' withholding powers and the factory's sound plan of maintenance and reinvestment eventually stopped production.

For the brief time during which the factory operated, it made a deep impression upon community life. In addition to the dislocation of 300 women from handicraft work by new technical methods, and the consequent movement of female labor to town and city, the presence of the factory redefined the status of women. By opening new sources of income, from wage labor, the factory enabled women to make immediate cash contributions to the household. For this reason, women who had been spurned by their kin groups or their affinal relatives were now looked upon with new respect. The separation of the daughter-in-law from a dominated daughter-in-law, plus the possibility of the daughter-in-law's becoming economically independent, seems to have been conducive to a reduction of interpersonal tension in the household and to the elevation of female worth and prestige. Also wage labor made it less necessary to depend upon inherited land, passed on through the patrilineal extended family, and thus changed the incidence of these extended families and decreased their temporal continuity. This *chia*, the patrilineal extended family, has been declining in social and economic importance in China, largely through the combined pressures of alternate means of livelihood, and changing status of women, and this case indicates the basis for decline.<sup>6</sup>

It is interesting to turn from this early example of industrialization to a factory operating in Southern Yunnan which was set up in the course of the war under government auspices. This factory is manned by workers whose industrial background varies among those who have no previous industrial experience, farmers with one or two years of industrial experience, and skilled workers of the Shanghai proletariat.<sup>7</sup> The labor force was mobilized by a

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(6) Levy, *op. cit.*

(7) Shih, *op. cit.*, pp. 34-40.

combination of economic, ideological, and personal incentives. Draft deferment was the most important push into industry; improvement of social status, the burden of debt, violations of clan standards of behavior, and commitment to the ideology of the "New China" all played roles in bringing and holding the labor force together.

The working efficiency of this factory is low, morale is poor, and like their American counterparts, informal work groups set production standards. The difficulties in the operation of the factory stem from the bases of rural Chinese life. Conflicts are manifest in the differing orientations of the Chih Yuan (administrative staff) and the workers. The worker is unaccustomed to the kind of authority which stems from efficiency imperatives in factory organization but which lacks traditional sanction. He is accustomed to, and trained in, kinship structures; he knows and seeks personal, intimate relationships; he strives for personal reward and individual recognition. The Chih Yuan, Western and efficiency-oriented in factory management, fails to convince the working force of the necessity for impersonal handling of production and promotions based on skill and knowledge. They attribute the failure of employees being able to view the productive process from the angle of economic and technologic imperative as a flaw in the ability of workers to "reason," or to be influenced by reason. In this government-owned factory both administrators and workers are civil servants and the conflict between them is not wholly economic, although it often is carried on in the sphere of wages, but over power and status within the organization, in that the lower echelons and the higher groups are operating upon different cultural premises. This results in a factory that is an unusual hybrid standing between traditional and Western forms of organization. These peculiar relationships of management to worker are further illuminated by T'ien in his study of female labor in a village cotton mill.<sup>8</sup> Women in this factory demanded and received personal counseling and services usually considered outside of the range of employer responsibility to employees.

Moving southward from China to India is a movement into greater industrialization, but less information is available as to its consequences. There is a considerable literature on the mechanization of Indian industry, but it is concerned either with the development of Western types of enterprise on a national scale or with the peculiarities of the managing agency promotion of industry.<sup>9</sup> The factory system came to India during the second half of the nineteenth century, and has transformed the life of the villager to a great extent. The village as the traditional economic and social unit is not being industrialized so much as being placed under attack by the loss of income from handicraft and artisan labor.

In Sholapur province, however, there is a case of village industrialization which focuses the trend followed by the economy at large. In Sholapur three

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(8) T'ien, op. cit.

(9) For this paper the sources used were Daniel H. Buchanan, The Development of Capitalist Enterprise in India (New York, 1934); P. S. Lokanathan, Industrial Organization in India (London, 1935); Mohan Nalini Pal, The Industrial Development of India (Calcutta, 1930).

types of production co-exist.<sup>10</sup> There the small independent weaver, the semi-dependent, and the wage-working weaver can be found side by side. In a sense, these three types represent stages in the transformation of the handicraft weaver to a wage worker. Prior to the advent of the factory in the seventies of the last century, there were numerous small independent artisan weavers each working one or two looms with his family. The finished article was sold to local cloth dealers or hawked by the weaver himself. With the onset of factory competition, there arose by the side of the small independents a class of producers working their own looms, whose output was entirely contracted for by export dealers. As prices fluctuated abroad, these organizations producing only for the export dealers came to have frequent periods of crisis resulting in a high mortality among them. A statistical survey of Sholapur shows that independent units with less than ten looms have failed to prosper, and indicates a definite tendency for the number of small units to decrease in number. These statistics also reveal that independent units with more than ten looms have not only survived competition but have prospered. The character of labor has also changed in Sholapur. Out of 848 workers classed as skilled 759 were wage workers, with the number of wage workers showing a constant trend upward.

In summary then, industrialization has cut the economic roots of the small, local handicraft industry in this province. The aggregation of workers at machines has had three main results: It has (1) created a class of wage laborers; (2) increased the operating size of existing handicraft production; (3) emphasized specialization in an aspect of the weaving craft in the factory as against a man and his family carrying out the entire process. What these shifts in economic organization mean for caste structure in the village, to the family, to the religious system and to other aspects of culture is still to be recorded. But Sholapur gives one diagnostic clue as to the movement away from traditional society -- the growth of voluntary organizations based upon choice and interest. Such voluntary groups as yarn merchants, dyeing merchants, handloom weavers, and a handloom workers' union have all sprung up between 1935 and 1940. Some of these groupings are very different from the usual organizations of the same "type." For example, the handloom workers' union had 47 applications for grievance settlement. Of these five were against co-workers and seven were related to domestic affairs. From reports on other Indian villages it would seem that these voluntary organizations affect the social status of castes, and that the basis of social organization may be shifting from caste to class, but clear findings on this point await further study.<sup>11</sup>

Continuing the movement southward to Indonesia brings in view yet another pattern of village industrialization. Secondary industry is divided into cottage, small-scale, and factory industry. Cottage industry is almost entirely in the

(10) R. G. Kakade, A Socio-Economic Survey of Weaving Communities in Shalapur (Poona, 1947).

(11) G. C. Mukhtyar, Life and Labor in a South Gujarat Village (London, 1930); V. Shah and S. Shah, Bhuvel, Socio-Economic Survey of a Village (Bombay, 1949); M. Opler and Rudra Datt Singh, The Division of Labor in an Indian Village in Carleton Coon, A Reader in General Anthropology (New York, 1948).



hands of the Indonesian farmer; small-scale industry is in the hands of Indonesians and Chinese, and factories are Western in ownership and capitalistic in spirit.<sup>12</sup>

Around Soekaboemi, in West Java, there existed a cottage industry making farm implements. From this developed a small-scale industry. A number of small-scale shops negotiated for closer cooperation, and within a few years a factory was established. These shops mobilized 1,200 workers into a so-called industrial central or cooperative. The finishing plant set up by the cooperative was a jointly owned enterprise, profits being shared among workshops according to work delivered. This form of industry, as complex as any Western factory, is established on the native pattern of reciprocity and the principle of return according to input. These industries are run on the basis of communal obligations to give mutual assistance. The sambatan, the moral obligation to give mutual assistance, is a binding tie to the Indonesian villager, and has been built into the industrial system.

However, this form of village industrialization is probably the exception rather than the rule in Indonesia. When factories are set down in villages they are usually owned and operated by Westerners. According to Boeke the imposition of the Western economy on the Indonesian village results in a dual economy.<sup>13</sup> This dualism is purported to rest upon the antithesis between two social-economic systems, one governed by maximizing monetary returns, the other by traditional production and exchange patterns. Although Boeke cogently argues the case for the inevitable disruptive effects of modern production upon village life, the empirical basis for supporting this thesis as a general result of capitalistic impact on Indonesian communities is lacking.

Hazardous and insecurely founded as they may be, certain points come out of this survey. Factories can and do operate in a diversity of social matrices, and factories themselves allow for a wide range in the possible relations of production, mode of discipline and distribution of production. What that range is, what determines the particular location of a community at one or another point in the continuum, is unanswerable at this juncture.

What are the necessary and irreducible effects of industrial organization? To this crowning question, not even bare hints exist. First, because the industrial complex and the community stand in a functional relationship and mutually determine each other, and secondly because intensive analysis of a situation where only industrialization has been introduced, or where it can be isolated as a separate variable, has never, to my knowledge, been undertaken, this question cannot, at present, be answered. It is, however, certain that the process of industrialization does not inherently have to repeat the pattern of the European tradition. In all probability, the scale and speed with which industrialization

(12) Peter H. W. Sitsen, Industrial Development of the Netherlands Indies, Bulletin 2, Netherlands and Netherland Indies Council of Institute of Pacific Relations, n. d.

(13) J. H. Boeke, The Structure of the Netherlands Indian Economy (New York, 1942); Boeke, The Evolution of the Netherlands Indies Economy (New York, 1946); Boeke, Oriental Economics (New York, 1947).

must be carried out in underdeveloped countries, if it is to be carried out at all, preclude repetition. Besides, the greater technical complexity of industrial production today as compared with its early stages in Europe will make for wide differences between current and historical experience. Finally, the increased social complexity needed to operate in an industrial system will make for a lack of resemblance between the experience of the West and new industrialization, even not considering the large role of different cultural heritages in modifying the social and technical bases of factory production.

One general effect of industrialization is the shriveling of handicraft production, in those cases where handicraft and factory compete. This is imputable to the economic superiority of the factory system over all previous systems of production. This shift from handicraft to factory production may sometimes involve a loss of technical skill, as in the case of the Sholapur weavers, as well as an increase in technological efficiency. The most debatable necessary effects of industrialization are the need for "functional specificity" or the shifting of status from ascribed to achieved and the breaking up of extended kindred systems. Involved here is the question of whether the functional requirements of selecting industrial personnel on the basis of skill and knowledge to do a particular job inevitably weakens or destroys the traditional system of status typically based on familial, ritual, or age criteria and its accompanying sanctions for behavior. The extent to which these differing bases of status may co-exist without conflict in a given social organization is theoretically problematical. Concretely, can one infer that the breakdown of the Chinese extended family, for example, in industrialized villages is due to industrialization *qua* industrialization? Or is it more likely related to the things -- democratic notions, the model of a family which is small, nuclear with large areas of individual choice and action, a positive definition of women's status, the school presenting literacy and scientific knowledge -- which diffused along with factory production and wage labor? Posed this way, inquiry is directed toward those processes whereby functionally specific selection in the productive sphere is translated into other sectors of life or contained within economic activity.

Similar uncertainties on the theoretical meaning of changes in values in industrialized villages, of the necessity of secularization, of the impersonality of social relations, and of the effects of new wealth await study and clarification. It is apparent that carefully analyzed, historically controlled and theoretically informed studies on village industrialization would go a long way to clearing up many of the problems here cited. The profitable use of the comparative method in the study of recent village industrialization awaits such an empirical base.

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## GENERATIVE AND PARASITIC CITIES \*

This paper has a threefold purpose. It is supposed to be a critical summing up of the preceding discussion; it should attempt to state a general theory of the relations between urbanization and economic growth and cultural change; and it should suggest some lines along which further fruitful research might be undertaken in order to obtain more precise knowledge about the interrelations of the processes of urban growth and development and those of economic progress and cultural change. This is a very ambitious task and one which, I fear, I am not able to fulfill satisfactorily. But I hope that my comments on these three topics might prove fruitful for further discussion.

There is agreement among the authors of the preceding papers that the growth and development of cities is a necessary condition of economic development. Lampard, in particular, points to the need for greater specialization of tasks which has been associated invariably with urban centers; Kolb stresses the need for a universalist-achievement-oriented value structure which is indispensable for a successful rationalization of production, and hence for industrialization, and finds also that the urban environment was a necessary condition for the evolution of such values; Davis and Hertz reecho these views and show that the concentration of economic activities within the relatively narrow geographical space of a city creates important savings which make possible a greater degree of specialization of production because of the closeness of complementary producers. This, in turn, is supported by Lampard's analysis of external economies to the firm and to the industry, which creates a situation of decreasing costs and stimulates further specialization. Supplementary to this process of progressive specialization is the development of new service industries, the growth of which is correlated with the size of cities on the one hand and the level of income on the other. The former is discussed by Vining and treated more exhaustively by the protagonists of the theory of urban hierarchy. In the table, which Vining cites from Brush's study of southwestern Wisconsin, the proliferation of specialized tertiary industries with increasing size of the central places is clearly shown. Yet this table includes only central places of the lowest three orders and it need hardly be pointed out that higher-order central places would exhibit not merely a larger population, but also a much greater variety of specialized service industries. The correlation between level of income and relative preponderance of service industries has been emphasized especially by Colin Clark,<sup>1</sup> but it is implicit in the discussion of Davis and Hertz, Lampard, and Vining. In terms of a theory embracing the concepts of urban hierarchy it can be stated by saying that higher-order central places are spaced more closely together in countries with higher incomes than in countries with lower incomes, and that the population of higher-order central places forms a larger proportion of the total population in countries with higher incomes than in countries with lower incomes. This result is confirmed by the comparative data on the proportion of urban population to total population calculated by Davis and Hertz. Stated in very simple and commonplace terms, this may be

\* This essay summarizes the contributions of the Conference on the Role of Cities in Economic Development and Cultural Change published in the previous two numbers of this Journal.

(1) Colin Clark, *The Conditions of Economic Progress*, 2nd ed. (London, 1951).

expressed by saying that the richer a country, the more urbanized it is and the larger a city in any country the wealthier it is.

It would seem, therefore, cities have, on the whole, exercised a generative function on real income and that, in the light of the available evidence, it is wrong to speak of a "parasitism" of urban centers. But in spite of the apparently overwhelming evidence offered by the study of urban history and the world-wide comparative analysis of urban centers, it may be useful to open up the problem once more.

If we speak of "generative" and "parasitic" cities, we must first explain these concepts. A city may be considered generative of many things, some of them desirable and others undesirable. As has been shown by the authors of the preceding papers, cities have been important centers providing an impetus for economic growth and cultural change, but also a fertile soil has been found in cities for social disorganization, criminality, and other presumably undesirable forms of social behavior. Cities have generated economic progress and crime, they have been places where new forms of cultural adaptation were hammered out, but also where an old culture which had lost vigor and vitality found its last stronghold and refuge. In order to avoid confusion and uncertainty, it is therefore important to state explicitly from what viewpoint a city will be regarded as "generative" or as "parasitic." The answer to this question should be clear from the context in which this paper is written. A city will be designated as generative if its impact on economic growth is favorable, i.e., if its formation and continued existence and growth is one of the factors accountable for the economic development of the region or country in which it is located. A city will be considered as parasitic if it exerts an opposite impact. A parallel relation may be stipulated between the formation and continued existence of a city and cultural change. If we apply this definition to the classification of cities which Redfield and Singer present, we must conclude that cities of heterogenetic transformation tend to generate cultural change, whereas cities of orthogenetic transformation tend to limit, and in the extreme, may fully impede cultural change. But this does not mean that orthogenetic cities are necessarily parasitic with regard to economic growth. The process of primary urbanization, though leading to a reinforcement of existing cultural patterns, may be generative of economic growth, and, at the same time, it is thinkable that cities in certain stages of secondary urbanization may exert an unfavorable effect upon economic growth of the wider geographical unit of which they form a part.

In the view of Redfield and Singer the process of primary urbanization is characterized by the development of a Great Tradition. This is in its core an intellectual process which is viewed as leading to the development of a class of literati, the final redaction of "sacred texts" and the evolution of a hierarchy of social control which often also is interpreted as being based on some sacred order. But the development of a Great Tradition may often -- though not necessarily always -- be bound up with the release of forces which exert a beneficial effect on economic growth. This appears to be suggested by the very definition of the process of primary urbanization, as implying a certain alteration in the essentially rural small-scale folk society. Historically this process has been associated with the evolution of often large and powerful empires. I am not competent to discuss the cultural, intellectual and general social trends



involved in the development of a great tradition among the Chinese, Indians, Maya, or several other peoples referred to by Redfield and Singer. But it is generally acknowledged that the formation of the great tradition in the ancient river valley civilizations of Egypt and Mesopotamia led not merely to the development of complex religious systems and governmental organizations, but also to scientific and technological innovations which played an important role in the more rational exploitation of agricultural resources and the increase in the total product. Similarly the process of primary urbanization which occurred in the early middle ages in towns which formed the seat of an ecclesiastical lord exerted often a favorable initial impact on the conditions of economic growth. In fact the ultimate rise in the late Middle Ages of many free cities, which originated as seats of a bishop or archbishop, was inaugurated by the "defection" of the bishop's ministeriales in the struggle between the merchants and artisans and their ecclesiastical overlords.<sup>2</sup>

Let us now take a look at the obverse situation, one in which a city is in the stage of secondary urbanization, i.e., undergoes culturally heterogenetic transformation, but at the same time exerts an unfavorable impact upon economic development of the wider geographical unit of which it forms a part. Redfield and Singer mention, among others, as typical examples of cities in the heterogenetic order, certain colonial administrative centers. Several of these cities may be regarded as forming exclaves of the countries in which they are located and as contributing to a stagnation -- albeit often only a temporary stagnation -- of the economic growth of their countries. Examples for this situation can be found more often in the past history of colonialism than in the present. The early urban settlements of the various European nations in the New World, but also in parts of South and South East Asia, appear to have been of that kind. It is granted that the new techniques introduced by the colonizing power, the increase of trade and commerce carried on by the Europeans, did result in economic growth within the city itself and its immediate environs. But the advantages accruing from this kind of urban growth to the wider region in which such a city was located were counterbalanced by an excessive depletion of natural resources, and the exploitation of peasants and other primary producers. This had the consequence that often stagnation and economic decline rather than economic growth of the region as a whole ensued.

We thus obtain four possible classes into which cities may be placed. They may foster both economic growth and cultural change, they may foster cultural change but exert an unfavorable impact upon the economic development of their hinterland, they may foster economic growth but resist cultural change, and they may induce economic stagnation and impede cultural change at the same time. It may be, of course, that one or more of these "boxes" will prove to be empty. It should also be stressed that any one city may be placed into more than one class in the course of its history. For example, it would appear on first sight that ancient Rome during its stages of primary urbanization tended

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- (2) For a description of this process in Strassburg, for example, see Gustav Schmoller, Strassburgs Blüte und die volkswirtschaftliche Revolution im XIII Jahrhundert, Strassburg, 1875, pp. 11 ff.; the same development in 13th and early 14th century Geneva has been described by Francis de Crue, La guerre féodale de Genève et l'établissement de la commune (1285-1320), Geneva, 1907.



to affect economic growth favorably, that it continued to do so during the early years of the Empire, although it had entered the stage of secondary urbanization, and that in the last two centuries of the Western Roman Empire it was a factor contributory to the economic decline and stagnation of Italy and other parts of the Roman west. Whether or not this impression can be verified would depend upon a careful and exhaustive analysis of the impact exercised by Rome upon the general level of economic activity of the empire of which it was the capital.

If we accept the distinction between an orthogenetic and a heterogenetic urbanization process, and if we admit that a city may at certain times of its history impede rather than react favorably upon economic growth, we are faced with two problems. (1) The period during which a city exerts a generative (or conversely a parasitic) impact may be of unequal duration. We may speak of a generative (or parasitic) impact in the short run or in the long run. The meaning of the concepts of short run and long run in this context is not quite identical with the usage of these terms by Redfield and Singer nor with the meaning attached to them in standard economic analysis. Short run relates to a period which may have some duration, but the end of which may be foreseen with a high degree of probability. Long run, on the other hand, designates a period which may be expected to continue indefinitely. This distinction may be expressed more precisely perhaps in the following terms. We will speak of a short-run generative (or parasitic) impact of a city if we can observe the presence or formation of factors which may be expected with a high degree of probability to change that impact. We will speak of a long-term impact, if such factors are not present or in formation.

Before I proceed it may perhaps be useful to make these distinctions clearer by one or two examples. I have mentioned earlier the impact of the establishment of colonial capitals. They initiated usually a culturally heterogenetic cycle of urbanization but at the same time exerted an unfavorable influence on the potentialities of economic growth of the surrounding country. The founding of Batavia is an instance of such a culturally generative but economically parasitic process of urbanization.<sup>3</sup> Many of the settlements of the British East India Company in India should be placed into the same class, and also Spanish colonial capitals in Mexico and elsewhere in Latin America. The processes unleashed in all these urban centers were similar. The old native ruling class was deprived of power; the desire on the part of the Europeans to attain a monopoly in the trade of the colony led to the destruction or debasement of the native merchant class; the country was exploited by the colonizing power with the sole view of yielding a maximum of profit to it.

But the divergent trends of economic development within these cities and outside them, in the wider countryside, had the effect of creating a situation which tended to counteract and eventually turn the parasitic impact of these cities into its opposite. The increasing difference in the average income which could be earned in the city as compared with the countryside tended to attract

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(3) See on the early history of Batavia and its impact, for example, J. J. Van Klaveren, *The Dutch Colonial System in the East Indies*, Rotterdam, 1953, pp. 40 ff.

migrants, or at least discouraged many who had come to visit the city to return to their homes. The population of the city swelled, a labor force came into existence which served not merely the trading and domestic service needs of the foreigners, but which made the establishment of industry attractive. This in turn exerted a favorable influence upon the potentialities of economic development of the wider countryside in which the raw materials for the industries, which had developed in the cities, were produced. It also created increased demand for food, and in some instances, export crops. The net result was the gradual improvement of economic conditions in the countryside and the widening of economic development over an increasing area affecting a growing proportion of the population outside the city.

This process is described here in its most idealized and simple form. In some cases it has not yet gone very far and the masses of the people in many colonial and ex-colonial countries are still miserably poor. Moreover, in some of the most important underdeveloped countries in which colonial capitals and a few subsidiary administrative centers formed such parasitic exclaves the attainment of independence brought about a new process of urban growth which occurred in response partly to political insecurity and warfare in some parts of the country. This wave of urbanization which can be witnessed in most non-industrialized countries is a very recent development. It has been noted by Davis and Hertz, who present data for Africa south of the Sahara. Similar processes of rapid urban growth can be observed in most countries of South Asia, Latin America, and the Middle East. I shall return later to this phenomenon.

The parasitic impact of colonial capitals and other administrative centers may be regarded as having been a short run impact in the sense in which this term is employed here. Although for a time the city tended to exert a clearly unfavorable influence on the potentialities of economic development of its hinterland, we saw that factors of change developed in and around the city which had the effect of turning the parasitic character of the city into a generative one.

It is not easy to discover actual instances in which the city has exerted a long-run parasitic influence on the economic development of the region which it dominated. I have referred earlier to the decline of ancient Rome in the fourth and fifth centuries, but I also pointed out that the determination of whether this is a conclusive case of long-run parasitism in the field of economic development could be verified only if the history of the impact of the city of Rome on Italy and the Western Empire were studied more extensively with this problem in mind. At the time of the decline of the Western Roman Empire, Rome was, of course, a city with clearly heterogenetic cultural orientation. Though one might be inclined to think that the historical development of Rome presents a somewhat unique situation and that one would encounter examples of long-run parasitism with regard to economic growth in cities which have become the strongholds of a Great Tradition and therefore resist the intrusion of culture elements from the outside, most actual examples of long-run parasitism that come to mind appear to have occurred in cultures dominated by cities in heterogenetic transformation. Apart from Rome of the third to the fifth centuries A.D., one might mention Constantinople from the middle of the 12th to the middle of the 15th centuries, or the cities of the Iberian peninsula in the 17th and 18th centuries. In both civilizations the decline set in after

contact with other cultures had been made and after the cities had become centers inhabited by a very mixed population.

On the basis of this reasoning we may draw a number of conclusions, which form a bridge to the second major problem, the general theory of urbanization in its relation to economic development and cultural change. The most important phase of the history of a city from the point of view of its impact on economic growth is its phase of cultural heterogeneity. In this phase, a city most often exerts a generative impact on the economic growth of the region it dominates. Concrete instances of this process have been cited by Lampard, Kolb, and Davis and Hertz, and they need not be repeated here. But in some cases a culturally heterogenetic city may exert a parasitic impact on economic growth, and this impact may either be of short or long duration. An important question to resolve is whether we can indicate the variables which determine whether a culturally heterogenetic city will have a generative or a parasitic impact.

A further point which results from the preceding discussion is that the generative or parasitic quality of a city must not be judged with reference to economic growth within the city and its immediate environs, but only with reference to the wider region which the city dominates. This implies that we assume the relation between a city and the region in which it is located to be one of urban dominance over the rural parts of the region. Whether or not such dominance exists, and which city among several tends to predominate above the others, may be ascertained by the application to concrete cases of the theories of urban hierarchy to which Vining refers. Although Vining, as well as the two urban geographers he cites, Walter Christaller and John E. Brush, are concerned primarily with economic dominance, cultural and political dominance by a city might be exerted along similar lines. Patterns of cultural and political dominance may differ from patterns of economic dominance. For example, in Renaissance Italy the cultural dominance of Florence was not matched by its political importance in relation to other Italian cities; similarly in the United States, Washington has supreme political dominance, but is not dominant from either the economic or cultural viewpoint; at the same time, Detroit and Chicago are economically dominant, but inferior in terms of cultural dominance to Boston and Los Angeles. On the other hand, there are countries in which a city at one and the same time has political, cultural, and economic dominance. Paris, Prague, Athens, Bangkok, Copenhagen, Oslo, Budapest, and many other cities are examples.

A city usually thus exerts dominance over a larger or smaller territory in which it is located, and dominance patterns vary depending upon whether we are concerned with economic, cultural, or political influence. The resultant of these partially overlapping and partially extrinsic fields of dominance appears to be a factor influencing the generative or parasitic impact exercised by a culturally heterogenetic urban center. In the case of colonial administrative centers, which we found to be often parasitic in the short run, the explanation of this outcome lies in the fact that the colonial capital is politically and sometimes culturally dominant within the colony, but economically subordinate to the metropolis. This is true not only of colonial capitals in the narrow sense of the term but often even of cities which have an analogous position to colonial capitals, but which are located in politically independent countries. Montevideo,

Panama, or Caracas are politically dominant in the countries of which they are the capitals. But they are economically subordinate to the great centers of world trade of which they are the gateways to the hinterland which they dominate. This tends to produce parasitic features in these cities which at times may overbalance the generative features they normally would be expected to display.

This dichotomy between cultural-political dominance, on the one hand, and economic subordination to external centers, on the other, appears also to have been at the basis of the parasitic role of cities like late medieval Constantinople and seventeenth century Lisbon. Constantinople's economic subordination under Venice during the last three centuries of the Byzantine Empire is too well known to need repetition. Similarly Lisbon in the period after the loss of Portuguese independence came under the economic dominance first of Spain and later of Britain.

These cities occupy a Janus-faced position with regard to the regions within which they have cultural and political dominance, but whose economic subordination they represent at the same time. Further light on their parasitism is thrown by the presence at the same time of different social-structural variables in their economic and cultural-political relations. Kolb has shown that the formation of the western city, of which Chicago was chosen as the prototype, was associated with a transformation of a particularistic-ascriptive value orientation to an universalistic-achievement oriented one. He also argues that the process of urbanization in underdeveloped countries, in order to be successful, must follow a similar pattern. This argument is in agreement with views I expressed in a recent article on the social-structural change associated with a transition from economic underdevelopment to economic advancement. However, I confined by analysis there only to "those sets of action systems which pertain to a description of economically relevant behavior, i.e., behavior related to the production and distribution of goods and services."<sup>4</sup> Moreover, I included in the analysis not merely the ascription-achievement and the universalism-particularism dichotomies but also a consideration of the other three pairs of pattern variables stipulated by Parsons, particularly the specificity-diffuseness dichotomy. This last pair of variables is stressed by Lampard in his analysis of division of labor and increasing specialization. Its addition appears to me important because, in general, there exists a close functional correlation between ascription, particularism and functional diffuseness on the one hand, and achievement, universalism, and functional specificity, on the other. But although such a close functional relation between each pair of pattern variables may be stipulated for a given area of social action, e.g., economic activity or political activity, it is not necessary that in the same society all fields of social action display the same structural variables. It is conceivable that economic relations, for example, are ruled by principles of achievement, universalism, and functional specificity, but that political relations display the principles of ascription, particularism, and functional diffuseness.

(4) Bert F. Hoselitz, "Social Structure and Economic Growth," *Economia Internazionale*, Vol. VI, No. 3 (August 1953), p. 57.



Differences such as these appear to account for the more or less permanent parasitism of certain cities. In its domestic environment, in the cultural-political order, the city is governed by principles of ascription and particularism; in its economic relations, which are dominated by strangers, achievement, universalism, and functional specificity dominate, or at least are in the ascendancy. The conflict between these two principles in different spheres of social life and action may produce incongruences which we describe as parasitism. The difference between long-run and short-run parasitism with regard to economic growth results from the preponderance of either the economic or the cultural-political relations in a given city. If there is reason to assume that the more "modern and rational," i.e., universalistic-achievement oriented tendencies of economic action are likely to prevail, the city's parasitism may be expected to change over into a state of generativeness. If, on the other hand, cultural-political resistances, the domination of vested interests, or the rigidity of a "great tradition" on the defensive, predominate, we may expect parasitism with regard to economic growth in the long run. In this situation only a revolutionary change in the political or cultural order of the city may end its parasitic role.

This discussion has led us already some distance into the field of a general theory of the relations between urbanization, economic growth and cultural change. It is not necessary to point out that we cannot boast of possessing a full theory, and that even those theoretical propositions which are summarized here, and which appear in the other papers submitted to this conference would require still a considerable amount of empirical support in order to be conclusively verified.

In this task one must distinguish three cases which are related to one another but may be analyzed separately: (1) the problem of economic growth and cultural change within a city; (2) the relation between a city's economic growth and cultural change and associated development in the region in which the city is dominant; and (3) the problem of economic development and cultural change of a country mediated through the development of a system of urban places, which come to form the urban hierarchy in the country in process of change. The papers of Lampard and Kolb as well as a substantial portion of the paper of Redfield and Singer are directed to the first problem. Similarly, the theoretical summary in the paper by Davis and Hertz centers on the first problem, although some comments of the second are included. Vining's paper deals primarily with the third problem, whereas some of the comments made in the preceding pages of this paper relate primarily to the second problem.

In summarizing the entire discussion it may perhaps be useful to state the agreements and disagreements in terms of these three cases. This may provide us with a rough guide of where there are still gaps and lacunae in our theoretical framework, and it may also point to those portions of our theory which need refinement, further verification, or revision.

As concerns the first problem, economic growth and cultural change within the confines of the city and its immediate environs, we may attain a fairly complete theory if we combine the propositions of Lampard and Davis and



Hertz about economic change (spatial concentration of production; specialization of productive tasks; external economies due to geographical propinquity; availability of a trained labor force and of social overhead; favorable conditions for the development of tertiary industries) with those of Redfield and Singer about cultural change (cities of heterogenetic transformation, with special emphasis on the patterns of cultural change in "metropolis-cities of the world-wide managerial and entrepreneurial class"; rise of a consensus based on self-interest and pecuniary calculation, i.e., a consensus appropriate to the modern, Western technical order; evolution of sentiments of common cause attached to groups drawn from culturally heterogeneous backgrounds; emphasis on prospective rather than retrospective view of man in the universe) and with those of Kolb on changes in social structure (development of universalistic-achievement oriented values and all that implies). Social structure and economic activity may be related by clarifying the connections between an universalistic-achievement oriented society and a culture which places emphasis on a prospective rather than retrospective view of man and in which consensus appropriate to a rationalized technical-economic order is achieved.

This framework describes in the most general terms the relations between the process of economic development and cultural change and the growth and development of a city. There is, however, one caution which should be exercised. Redfield and Singer mention as a special case the "colonial" cities, and ask whether they can reverse from the heterogenetic to the orthogenetic transformation. They conclude that such a development is unlikely. Since these cities do not display a clearly dominant cultural pattern, we may ask further whether the "normal" development described in the preceding paragraph may be expected in them. Redfield and Singer have shown the typical (though not necessarily universal) process of cultural change associated with economic development to be from primary to secondary urbanization. But primary urbanization normally implies the development of a strong, dominant, integrated culture within a city, which then becomes modified in the process of heterogenetic cultural transformation. In general this heterogenetic transformation consists in an accommodation of new culture elements into the dominant culture. The development of the economy of the city is made possible without excessive degree of social disorganization because, and to the extent to which, the dominant culture of the city is flexible enough to permit a more or less gradual and "orderly" introduction of new culture elements. Kolb has shown how strong may be the forces making for social disorganization and how powerful must be the cultural restraints in order to prevent rapid economic development from creating social chaos and thus defeating itself, in the long run.

In many "colonial" cities a strong, dominant, integrated culture is absent. In addition, the recent process of urban growth in many of these cities has been characterized by the following characteristics: (1) It has been unusually rapid (as is shown, for example, by the data for Africa presented by Davis and Hertz). (2) It has, in many cases, reinforced the ethnic and cultural heterogeneity of the urban population. (3) It has occurred not in response to the availability of economic opportunities, especially employment opportunities, in the cities, but as a result of pushes and pulls created by political and military insecurity in the countryside and "psychic" attractions of city life.

(4) It has been concentrated in a few central cities, sometimes at the expense of the growth of other smaller cities. The already existing imbalance in the distribution of urban centers in some colonial or "quasi-colonial" countries has been reinforced. The capitals of these countries have grown relatively faster than other cities and have become, in the words of Mark Jefferson, "primate" cities.<sup>5</sup> I shall return to this problem later in the discussion of the relationship between economic development and cultural change and the evolution of an entire urban hierarchy.

If we consider the first three of these factors, especially the second and third, we must conclude that we are facing a phenomenon of urban growth which is somewhat unique. It is, of course, true that some primate cities in Europe reached rather large size before the widespread introduction of industry. For example, Paris had some 750,000 inhabitants around the year 1700, and several other European capitals were not very much behind even though their degree of industrialization was of subordinate magnitude.<sup>6</sup> But the most rapid period of growth of European cities falls in the period of the industrialization of the various countries, and, as Lampard shows, there was an intimate connection between the economic demands for labor exerted by progressive accumulation of capital in urban industry and the growth of urban centers. This peculiar condition is absent in many of the primate cities of underdeveloped countries in Asia, Africa, and Latin America. Migration to cities takes place for a number of reasons. In part, it is caused by the destruction of the permanent basis for existence in the traditional surroundings of the migrants. In some cases population pressure in the farming regions may become so strong that emigration is necessary for mutual survival, and in other, more frequent cases, peasants are deprived of their traditional livelihood from tillage because of military insecurity, warfare, dacoity, banditry, and other forms of violence. In part the migration to cities is, however, due to pulls exerted by urban conditions. The relatively strong pull of superior consumption patterns has often been noted, and the very low living standards prevailing in most rural areas of underdeveloped countries, coupled with the drabness and the hardships of agricultural labor under conditions of backward technology, makes life in the city appear attractive. It is granted that there are compensations in rural regions, which counterbalance some of these relative disadvantages, but the loosening of cultural restraints as a consequence of inroads made by a more advanced economy, by warfare and political unrest, and a partial breakdown of the traditional kinship ties, create a climate facilitating geographical mobility of persons and their gradual congregation in the primate cities and a few other urban centers.

In spite of the development of intense nationalistic sentiments in some underdeveloped countries, the recent rapid growth of their capitals continues to exhibit culturally heterogenetic features. Migrants to the cities come from the various cultures indigenous to the underdeveloped country rather than from

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(5) Mark Jefferson, "The Law of the Primate City," *Geographical Review*, Vol. XXIX, No. 2 (April 1939), pp. 226-232.

(6) See Emile Levasseur, *La population française*, Paris, 1889, I, 213.

foreign countries. But the cultural heterogeneity of a city like Rangoon is not much diminished if instead of a mixture of Burmans, Indians, and Britishers, the mixture is one of Burmans, Karens, Shans, and Chins. Moreover, the agglomeration of the population occurs on the grounds of economically "irrational" motivations. It is provoked not by an increasing demand for labor in urban centers, but rather by considerations outside the sphere of resource allocation and use.

The combined impact of these factors is likely to prevent the smooth development of a universalist-achievement oriented value structure. To the extent to which tendencies for its development have been present in colonial and "quasi-colonial" capitals, they have been fostered by the dominant influence of Europeans and have perhaps been reinforced by the characteristics of these cities as exclaves in their countries. To the extent to which the attainment of independence and the rise of nationalism tend to destroy or diminish this European influence, the main cultural group favoring the development of universalist-achievement oriented values becomes pushed into a subordinate position. At the same time, there is nothing to take its place, for the "impersonal forces of the market" which were a characteristic aspect of European capitalism and one of the main forces favoring the development of these values are operating only haltingly and imperfectly in the primate cities of underdeveloped countries. Their operation is, moreover, concentrated in those activities which are oriented towards the world markets rather than the domestic labor market, or even the domestic commodity markets.

The prospective socio-economic development of the cities in underdeveloped countries may, therefore, not follow the pattern of development exhibited by cities in advanced Western countries. Kolb recognizes this when he suggests that an alternative pattern prevailing there may be based on universalistic-ascriptive orientations. In view of the development of cultural heterogeneity in these cities which is characterized not any more by a contrast of a dominant European to a submerged native culture, but rather by a diversity of value orientations based only in part on ethnic disparity and to an increasing degree on social differentiation, particularism, rather than universalism, may play an important role.

Let us take another look at Rangoon in order to clarify this statement. Before independence the characteristic mark impressed upon Rangoon was the dominance of Europeans. This dominance was exerted primarily by the fact that Rangoon's major function was that of a port through which the products of Burma passed into the world markets and through which, at the same time, the products of the world market entered Burma. Rangoon was, therefore, the main locus at which the culture of Burma became affected and modified by that of the West. Economically Westerners were dominant, and even in the second rank of economic dominance we find Indians (culturally more adjusted to the West than the native Burmese). Moreover, even among the Burmese preference was given to those who adopted certain Western cultural values, such as Christianity, for example. The cultural heterogeneity of Rangoon can be described as exhibiting the impact of Western culture on the native culture of Burma and the modifications occurring in this culture provoked by the economic dominance of Westerners. The greater economic "success" of the West was

the means by which the cultural impact was primarily exerted. This preponderance of the economic factor (which has led, among others, to Boeke's well-known theory of the dual economy)<sup>7</sup> made Rangoon an exclave of Burma. It existed as one of the emporia of the world market rather than as a capital of a native, culturally distinct, population.

After independence this situation changed. Rangoon's economic position with regard to the world market became altered relatively little. But the internal relationship between the dominance of Rangoon's economic function and its cultural function as a center of a native culture became reversed. Although it remains the gate through which the foreign trade of Burma passes, this function is now subordinated to Rangoon's function as the capital of an independent country with its own culture. But Burmese society is not homogeneous. It is linguistically and culturally heterogeneous and the distinctions between Burmans, Karens, Shans, and Chins are not confined to culture but extend to the social-political level. Whereas a society with a "dual economy" exhibited fairly clear-cut distinctions, and a relatively unambiguous pattern of dominance and subordination, the "plural society," which replaced it, is in many ways more complex and dominance patterns vary as between different areas of social action. Though the Burmans may hold a monopoly of political power, Karens exert greater economic power in some fields, and European and Indian influences are not eradicated in certain intellectual milieus. The Burman elite itself is not and cannot be culturally "pure." The consequence of this situation appears to be a reinforcement of particularistic values.<sup>8</sup> Hence the problem of the prospective development of cities in underdeveloped countries is not yet fully clear and it appears that here is an important further problem for research.

The development may lead toward a universalist-achievement oriented value structure and some cities in underdeveloped countries could be mentioned which apparently provide examples for this alternative. Sao Paulo, Caracas, and some other cities, especially in Latin America, belong in this group. The development may lead also to the predominance of particularistic-achievement oriented values, and some of the capitals of South Asian nations, Colombo, Rangoon, Jakarta, and others -- as well as the cities in India, if Marriott's analysis is accepted -- fall in this group. Finally, we may have the development of universalist-ascription oriented values, and these may be the patterns of urban growth in China. Some cities in underdeveloped countries may, moreover, exhibit several of these features simultaneously. This represents a transitional stage the general outcome of which is as yet uncertain.

I now wish to turn shortly to a discussion of the problem of the relation between economic growth and cultural change within the city and the associated development of the region in which the city is dominant. So far I have tacitly assumed that the impact is essentially a one-way process, that change

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(7) See J. H. Boeke, *The Structure of the Netherlands Indian Economy*, New York, 1942, Ch. I.

(8) McKim Marriott arrives at a similar conclusion by a somewhat different process of reasoning.



occurs in the city and is transmitted to the surrounding countryside. This uniformity is questioned, and in my opinion, rightly so, by Redfield and Singer. The obvious exception which they cite is the process of primary urbanization. But apart from this instance, which we will disregard here because we are concentrating only on situations of cultural heterogeneity, they suggest that the process of mutual cultural interaction between the city and the country needs further exploration. Here is a problem which is, as yet, very little studied and which would require the formulation of some testable hypotheses. Most of the methods which have been developed to study the interrelations between city and country have been based on several implicit assumptions. One of these has been that of the cultural dominance of the city. This is exhibited by the very ingenious devices developed by urban geographers and social ecologists who analyzed the urban hierarchy or the sociology of urban centers.<sup>9</sup> Other characteristics of these methods are that they are essentially static, i.e., relate to the description of a situation at one point in time, rather than to a process, and that they concentrate almost exclusively upon the economic functions of the city. Both of these characteristics as well as the assumption of urban dominance are displayed also in Bogue's work on metropolitan communities.<sup>10</sup> In fact, as the subtitle of Bogue's work indicates, he is concerned essentially with the patterns of urban dominance, and, as his work shows, this pattern of dominance is exhibited particularly in the economic relations of cities. It is perhaps no accident that Bogue can discern patterns of urban dominance so clearly in the United States. This is the country with the most highly developed economy. It is sometimes said that in the United States urban culture has penetrated into the most remote spots of the countryside. But its high degree of economic development also implies a high degree of economic interdependence, and for this reason economic factors may be used with greater advantage than others as indicators of the closeness or remoteness of relations between population centers and surrounding areas. Bogue's scheme of dominance is, therefore, entirely based on the economic relations between cities and their less densely populated hinterlands. Although some of the other schema developed to describe patterns of urban hierarchy are not as rigidly tied to economic relations as Bogue's model, they rarely include any measures which clearly fall into the realm of cultural contacts. It is true that such measures as newspaper readership are sometimes added, or that -- as is done, for example, by Christaller -- certain political or administrative factors are included, but the most important variables which these models include are economic indicators. This means that even to the extent to which static models of the mutual impact between cities and their wider hinterland exist, only a partial set of factors relevant for this interdependence have so far been examined, and it would be desirable to develop methods which would take account of non-economic factors. I have no doubt that this would be an extremely difficult procedure, and that it would be especially difficult to find variables which could be subjected to quantitative analysis

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(9) A good review of some of the most recent literature is presented by John E. Brush, "The Urban Hierarchy in Europe," *Geographical Review*, Vol. XLIII, No. 3 (July 1953), pp. 414-416.

(10) Don J. Bogue, *The Structure of the Metropolitan Community: A Study in Dominance and Subdominance*, Ann Arbor, 1950.



as easily as can many economic variables. At the same time, it might be possible to obtain some more light on this mutual interdependence in areas of non-economic activity if such factors as linguistic and ethnic differences in cities and their hinterlands, perhaps membership in religious organizations and intensity of religious activities, length and purposes of seasonal migrations and travel, were studied. Which of these (or any other) factors should receive prominence would depend on the development of a theoretical framework of cultural dynamics and this is, alas, still lacking in most of its essential portions.

The fact that most existing models of the interrelations between cities and their hinterlands are static is of less concern. It is, of course, granted that what we are interested in chiefly is an analysis of the process of cultural change and economic growth. But this does not mean that this process can be studied only by applying dynamic models. As a first approximation the method of comparative statics may be used. In other words, the process of cultural change and related economic development and their interrelations with the process of urbanization may be adequately explored by attempting to find functional relationships between these variables and subvariables and by comparing static situations which are related to one another through time. Here the contribution of the historical study of urbanization may be most important. But in order to obtain results about the relationship of cities to their hinterlands, the historical study of cities must free itself from concentrating on urban history in the narrow sense and must expand into a study of the historical dimension of city-country interdependence and interrelations. Again I am ready to acknowledge that it is not easy to state in specific terms the concrete formulation of problems which may be expected to yield meaningful research results. But I hope that a recognition of this problem may lead to such formulation and to the discovery of appropriate methods by which answers to the kinds of questions posed here may be found.

The third problem area is the determination of relationships between economic growth and cultural change and the development not of one city but an entire net of cities which stand in some order of hierarchy to one another. This problem is treated explicitly by Vining though it is dealt with, by implication, also by the authors of all the other papers. The first comment which may be made here, and which follows from much of what has been said earlier in this paper, is that the "system of cities" as described by Vining, in which cities if ordered by rank and size are distributed in accordance with Pareto's law, seems to hold only for countries with a relatively high degree of industrialization. In the industrially less developed countries, the "law of primate cities" in its more extreme form appears to hold. In fact, in some underdeveloped countries this "law of the primate city" is so strong that apart from a capital which may have a million inhabitants or more, there are no other "large" cities, i.e., cities of more than 100,000 inhabitants. Perhaps the two most outstanding examples are Thailand and Peru.<sup>11</sup> In each the metropolitan city (with environs) has a population of around a million and the country lacks any other urban region exceeding 100,000 inhabitants. Yet

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(11) For further examples, see Jefferson, *op. cit.*

Thailand has a population of more than 18 and Peru of almost 10 million. In some other less developed countries the predominance of the capital is not so pronounced, but the over-all disproportions between the largest, the small group of large, and the mass of small and minute cities is also sufficiently pronounced so as to make the rank-size rule inapplicable. This extreme degree of urban concentration in relatively few centers can be found not only in many underdeveloped countries, but also in many European countries before the industrial revolution. The preeminence of Paris at the time of Louis XIV has already been mentioned. It should be added, however, that at the time Paris had several hundred thousand inhabitants, there was no other French city which even reached 100,000. The same was true of Britain. At the time of the Glorious Revolution, London had around 700,000 inhabitants, and Bristol, the second city in Great Britain at that date, only around 50,000.<sup>12</sup>

If Vining is correct in his statement that a Pareto distribution holds in all "developed systems of cities," and that in the United States this size-rank distribution has "maintained a fairly stable form since 1790," we are faced with two problems: (1) The development of a system of cities in the United States -- perhaps as a consequence of its rapid settlement -- has been unusual and it is, therefore, perhaps not proper to draw inferences from its past development to what may happen in presently underdeveloped countries, especially those which are more densely populated now than the United States was before the middle of the 19th century. (2) The present system of cities in the United States is characteristic of a "developed" system of cities. If countries of reasonably sizeable population are found in which this relationship does not hold, can we infer that these countries have an "underdeveloped" system of cities? And if so, what are the characteristics of an "underdeveloped" system of cities? In France and Britain the relative preponderance of the capital is still very pronounced, in spite of the relatively high level of economic development which these two countries exhibit. In France, especially, the rank-size rule does not fit well. It would be approximated much better if the agglomeration of Paris were left out of the picture. But Paris cannot be left out of the picture -- not only because without Paris France would not be France -- but rather because France exhibits, in spite of industrialization and economic growth, the pattern of predominance of a primate city. This means that even granting the general applicability of the rank-size rule to a system of cities in an economically developed country, we are left with the problem to determine what distortions of this rule are caused by cultural and political factors, the differences between trends towards political centralization as against federalism, the historical patterns of settlement of a country, and, in the last resort, its entire demographic and economic history.

What I am trying to say is that the apparently neat and simple relationship that can be stipulated -- in a rough way -- for the system of cities of some countries, may become strongly modified if other, especially non-economic, factors are introduced. Depending upon whether the factors accounting for the

(12) These data are based on the estimate of Sir William Petty, "Essays in Political Arithmetic," in *Tracts*, Dublin, 1759, pp. 182 ff.

deviation of any actual distribution from the theoretically postulated one are all outside the realm of economic relations or not, it will become possible to predict with a somewhat higher degree of dependability how and in what ways economic growth and a rank-size distributed system of cities are related. I fear that some of the factors determining the deviations are economic, or at least demographic-historical factors, and hence any close correlation between the level of economic development and a particular pattern of distribution of urban centers may never be established.

Although some of these factors may be of importance with reference to the problem in which we are here primarily interested, the most important query that arises, if one considers the usefulness of such models for the study of economic development and cultural change, is the meaning of the function of the various central places in the model. The list of service functions in Wisconsin hamlets, villages and towns, which Vining cites from Brush, exhibit characteristic aspects of a highly developed economy. A similar list of hamlets, villages and towns in an underdeveloped country, say India, would show a very different set of typical functions of each central place of a given order. Whether a theory of central places can be applied to our problem depends, therefore, not so much on the presence or absence of regularities in locational patterns, but rather on whether we can compare meaningfully central places of different order in countries on different levels of economic development. Moreover, since cultural factors affect the functions of cities, differences in culture would add another element possibly still further limiting comparability. Yet, it is probable that an urban hierarchy analogous to that in southern Germany or Wisconsin exists in underdeveloped countries, especially those with many central places. The higher-order central places would probably be more similar in their service functions to one another in countries with different levels of economic development than central places of lower order. For example, a city like Bombay or Madras would differ less (in significant service functions) from Chicago or Milwaukee than some Indian small town of 10,000 inhabitants from Baraboo or Prairie du Chien, Wisconsin. At the same time, it is doubtful whether in Wisconsin, or the entire United States, central places could be found which correspond in function to Benares or Mecca.

Since the characteristics of central places of different order are derived primarily from economic functions, those central places in underdeveloped countries which in their economic structure most resemble corresponding central places in more developed countries would show the greatest functional similarities. This is true primarily of the large cities, especially those which in the colonial and ex-colonial countries form exclaves, i.e., in their primary function, are appendages of the system of world markets. But the cult places, as well as those central places in underdeveloped countries in which assimilation to Western culture has progressed the least, would show much greater functional differences with corresponding central places in Western countries. A comparative analysis of central places might show therefore the degree to which a rationalized Western system of economic organization and activity has penetrated a given country and might be a fairly good measure of the breadth on which the economic development of a country has taken place. Here again, cultural differences and historical traditions would blur the picture and

introduce deviations which would have to be specially accounted for in each case.

All these procedures, however, only provide yardsticks for comparison, approximations of stages of economic development, and criteria for classification. They would have to be supplemented by a theory in which the development of a given system of cities is related to processes of economic growth. Such a theory is as yet non-existent, but it is possible that further study and refinement of some of the relations studied by the protagonists of urban hierarchy or the theorists of systems of cities may lead to one. Here then is a field in which research has just begun and has therefore progressed very little. It presents perhaps a greater challenge and offers a wider scope for research than almost any problem area discussed so far.

It appears as if we had come a long way from our original problem, the distinction between generative and parasitic roles of cities, but in truth, the propositions discussed in the previous paragraphs are alternative statements of this problem, especially if we consider that the question of whether and under what circumstances cities exert a generative or a parasitic impact is an alternative way of asking what are the general relations between the processes of economic growth and cultural change on the one hand, and urbanization on the other. Depending upon whether we focus on these processes within a city, in the city's hinterland, or in an entire country undergoing a process of development accompanied by the formation of a net of urban centers, we encounter different sub-problems and may come out with different evaluations of the generativeness or the parasitism of a given city or set of cities.

The over-all process of development of a system of cities corresponding more or less to the functional and size distribution presented by Vining may be considered as the most general pattern of economic development in which urbanization plays a predominantly generative role. To the extent to which this development of a system of cities is impeded, or to the extent to which a top-heavy system exhibiting the characteristics of primate-city domination cannot be overcome (and especially in those cases where the dominance of a primate city is reinforced in the process of urbanization), we may find a series of at least temporary parasitic influences exerted by the primate city. The particular form of this parasitism as well as the seriousness and duration of its impact will depend, as I believe to have shown, upon the particular constellation of economic and non-economic (primarily cultural, political, and social-structural) factors. The determination of these factors, and of their interrelations, becomes then one of the primary research tasks in the study of the mutual interrelation between urbanization and economic development and cultural change.

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